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America's Commerce.

Our foreign trade for 1898 reached the high-water mark up to date, but the outlook now indicates a continuation of this really marvelous expansion of trade interests. Today the most remarkable and wide-reaching factor in the world's trade is the growth of our exports of manufactured goods. From being a great importer of iron and steel and their finished products we have entered the world's markets with a dominating power which would have seemed impossible twelve months ago; from being a debtor nation, dependent in financial matters upon Europe, we have become a creditor nation, and are today practically dictating to the money markets of England and the Continent. The scepter of financial power has been transferred from London to New York. As the youngest and most virile of the great nations of earth we have a future which the mind of man dare not attempt to portray. Every day is adding to our power and our wealth, and every day marks an advance in our position as the financial and manufacturing country of the world. In 1895 our exports exceeded our imports by only \$23,190,789; last year the balance in our favor was \$621,260,535. In the last three years our exports of merchandise have exceeded our imports by over \$1,300,000,000. This is a serious situation for Europe to face, but to us it means a vast addition to our wealth and a great extension of all business interests.

Faith and Caution.

Special correspondence from Berlin of the Manufacturers' Record states that the Germans admit that the recent Russian order for 80,000 tons of steel rails was first offered to German works, but that they could only take it upon condition that the delivery should begin in January, 1900, and that then the order went to America, because delivery was prompter. A somewhat similar point is made by T. Lloyd in his review of American prospects in the London Statist. He calls attention to the fact that one of the leading Indian railway companies tried to place orders for locomotives and rolling stock in England, but finding that the orders could not be executed in less than two years, was compelled to place the orders in the United States; that other

Indian and Colonial companies had had the same experience, and that later one of the greatest English companies—the Midland—had placed a similar order. Mr. Lloyd deduces from these facts that railway manufacturing industry in the United States is not fully employed, and he also takes the importations of American steel and iron into Europe as evidence that the iron and steel trades are not fully employed.

Be that as it may, he sees every reason to expect a great improvement in general trade throughout the United States in the coming year. He takes into account, of course, the defeat of Spain, and the subsequent opportunities in Cuba, Porto Rico and the Philippines, inasmuch as the opening up of the new possessions will develop trade between them and the metropolitan country, and their prosperity will react upon the United States. He adds:

But apart altogether from the new possessions, there is sure to be a great outburst of enterprise in the United States itself. New railways by and by will be planned and undertaken, and no doubt many other kinds of operations will take place. If the banking law is amended, for example, there is sure to be a creation of large banks with numerous branches. And just as industrial enterprises are now being formed, the creation of other kinds of limited liability companies will, it may be predicted, take place. For all these reasons, and others that might be mentioned, I venture to think that the two years that have elapsed since the election of President McKinley have been only preparatory to the real period of prosperity that is now about to set in. But while I hold this opinion strongly, I would add one word of warning to the reader, namely, that it is in a period of great industrial enterprise and seeming prosperity that the greatest caution is requisite on the part of the investor. Speculation on the American stock exchanges is being carried too far and too fast just now. Everyone is so convinced that there is a good time coming that each is eager to buy far more than he is able to pay for. The British public will do well to keep this clearly in mind, even while it recognizes fully that the good time will come.

Mr. Lloyd's warning is timely. His faith in the future of this country has substantial reasons, and is reinforced by the confidence prevailing here.

When the Iron Is Hot.

During the past year the Iron and Coal Trades Review, of London, in common with other English papers, has devoted considerable space to the record of the marvelous developments of the American iron market. It has done this confessedly because the American developments have been more marked than others. The climax of this policy of publication is reached in the enterprising English journal's review of the iron and steel trades of the United Kingdom in 1898, wherein are set forth many facts of great interest to the iron producers on this side of the water. Speaking of the phenomenal activity of iron and steel industries, the Review says:

In the pig-iron industry we have introduced from the United States the Uehling casting apparatus, which is now apparently about to be generally applied. In the steel industry we have introduced the Wellman charging machine, which will economize the

cost of charging steel furnaces by probably nearly a shilling per ton. In the cycle industry American machines have been introduced to a considerable extent over the last two years. In other branches of industry American lathes, American cranes, American rolls and American ideas in other directions have been adopted and applied, often for the first time. All of these may be regarded as missionary efforts. If it should prove—as generally it may be expected to do—that the innovations in question are attended with economy or other advantages, their use is likely to spread, and the general efficiency of British manufacturing industry is thereby certain to be raised to a higher level.

Dealing specially with the pig-iron trade, it says that the advance of pig-iron quotations would probably have been considerably more than it has been but for the fact that American imports blocked the way, and that American pig and not the home pig has to a large extent controlled British prices during the year. The development of the American pig-iron industry is shown by the fact that, whereas, in 1876 Great Britain made 48 per cent. of the world's output, while the United States produced only 13.7 per cent. in 1898, the United States, which had shot ahead of Great Britain's output for the first time in 1890, and has since maintained the lead, produced 11,506,000 tons, while Great Britain produced but 8,850,000. It rather discounts the argument that the consumption of the United States is phenomenal for a comparatively new country in the statement that numerous sections of this country will increase their demands for pig iron in the near future. The Review considers that the principal event of the year in the Bessemer steel industry has been the increasing keenness of foreign, and especially of American competition, and adds:

The total exports of American Bessemer steel rails in 1898 are likely to reach 300,000 tons. Ten years ago it was practically nil, and five years ago it was so insignificant as not to be deserving of consideration. It is now so urgent and aggressive that there is no order in the market of any importance for which American rail manufacturers do not compete, and they have been particularly strenuous in their competition for Chinese and Japan orders. There can be little or no doubt that this is a new factor with which we will have to reckon in the future.

The finished iron trade has, it has been contended, probably been less affected by competition from the United States than most others, but serious competition from that quarter is apparently because of the new plant just laid down near Pittsburg, on the most modern lines, and on a larger scale than any hitherto attempted. The Review sees no assurance in the outlook for the future of tinplate trade; for, though a number of new ideas and devices calculated to economize production and meet the competition of the United States have been adopted, the ultimate entire loss of the American markets is threatened. The tone of the Review extends to the communications to it, for in an article by Alexander Armour, he writes that "there is no shutting our eyes to the fact that the United States now stands pre-eminent as the cheapest producer of iron and steel, and

it is to her we must look as the general controller of prices."

The South is already the cheapest producer of iron, and should become the cheapest producer of steel. Why, therefore, should the world not look to her as the controller of prices of the future?

A Business Ambassador.

An illustration of the advantage of having a practical man as a representative of the United States abroad is given in the recent award in Russia of an important contract to Americans in competition with Englishmen. Commenting upon the award, a correspondent of one of the leading London dailies, referring to Ambassador Hitchcock, who has since been called to the Secretaryship of the Interior, said:

Your ambassador is a practical man; he sees and does things. Our people were very anxious to obtain that contract, and the bids show that it would have been awarded to an English firm but for the influence of your ambassador, who secured the postponement of the date for awarding the contract to enable American bids to reach St. Petersburg. However, that is business, and I only wish our ambassador would take the same interest in assisting English firms to obtain orders for English goods as your ambassador does for Americans.

Favors the Subsidy.

In a letter to the Manufacturers' Record, Major J. F. Hanson, of Macon, Ga., one of the leaders of Southern thought and Southern enterprise, sets forth clearly reasons why the shipping bill introduced into the Senate by Senator Hanna should be adopted. He does not deal with questions more or less foreign to the measure, from a discussion of which confusion in the public mind is likely to result, but goes straight to the mark in pointing out the necessity for a merchant marine, and seeking the best way to get it. He shows from experience that private capital, unaided by the government, will not supply the demand, inasmuch as we cannot be expected to pay more money for ships and more wages to man them than competitors pay, and do our share of carrying trade at their rates, when their income is supplemented by sailing fees or subsidies in other forms, when we have no such income. He points out that the expenditures from the common treasury will benefit every man, woman and child in the country, and that in the case of war great shipbuilding plants and a large supply of steamships with trained men to man them would carry aid to the national defense, and concludes by drawing a parallel between what has been accomplished by municipal, county, State and federal aid to railroads, and what will be accomplished by similar aid to steamship lines. Based upon a broad, non-partisan, but national view, the letter of Major Hanson, typical of the opinions of many wide-awake men of the South, will be widely read and have its effect upon the solution of the great problem before this country.

The Text Hit Home.

Recently the Manufacturers' Record remarked that "no city can permanently thrive upon the policy of slurring a rival." This truth has been taken as a text for impressive sermons by contemporaries in Charleston and in Savannah, the Charleston exhorter solemnly chiding Savannah for trying to make capital by disparaging Charleston, and the Savannah preacher as gravely recommending that Charleston cease her efforts to rise by slandering Savannah.

This, from the Norfolk Landmark, recalls the story of the old parson who had faithfully served for years a congregation noted for the individual enthusiasm of its members in the cause of home missions. Great advance had been made by the congregation as a whole in this direction, but the old parson, after mature deliberation, was convinced that results were not commensurate with the full resources of his flock. Seeking the cause of this, he traced it directly to the rivalry of members, particularly those who happened to be adjoining pewholders, for the honor of gaining converts. Energies, which united may have hastened the work of conversion, were wasted in unseemly wranglings in the presence of the home heathen and of those who sat in the seat of the scornful to the disparagement really of the work itself. Distressed at such a situation, the old parson upon a certain day began to preach. With an introductory remark upon the clashing of individual interests, he announced his text—"Let him that would cast the mote out of his brother's eye, first cast out the beam from his own eye." Hardly had the text been uttered, when two of the most prominent members, beloved by the parson for their admirable traits, rose in their respective pews and shook their fists at each other with such vehemence that one of the most sedate elders felt called upon to point his finger toward them in derision. The old parson smiled and said: "Brethren, my sermon is ended. I need say no more. I am glad to see that you are all awake."

Fairness of Railroads.

Men who for years have sought to array the masses against transportation agencies on the specious ground that they were corporate monopolies and against the public welfare, are read a striking lesson by the New York Commercial and Financial Chronicle. The new year has been signalized by the restoration of wages previously reduced by four railroad corporations in which the South is particularly interested, the Southern Railway, the Louisville & Nashville, the Nashville, Chattanooga & St. Louis and the Missouri Pacific railroads. Commenting upon this fact the Chronicle says:

In noting this action in these cases it is well to observe at the outset that these are all properties where a reduction in wages because of the unfortunate circumstances of the roads was imperative during the years when the carrying industry was so severely prostrated. The Southern Railway, as is well known, is the old Richmond & West Point Terminal system reorganized. The Louisville & Nashville and the Missouri Pacific have both been obliged to withhold dividends from their stockholders for years—the former having paid nothing since 1893, the latter since 1891. And this calls attention to the reluctance with which managers make reductions in the wage scale, only entering upon such a course as a last resort. Where there was still a margin of dividends for the shareholders wages were not cut. In proof of this statement we point to the fact that on most of the leading railroad systems of the country the old rate of pay was maintained all through the times of depression. Stockholders might have to content themselves with smaller returns, but the effort everywhere was not to lower the compensation to the employee, if such a step could

be avoided without risk of insolvency. The force of employees of course had to be cut down, but the pay for the service was continued. On the other hand, where, as in the case of the Louisville & Nashville, the Missouri Pacific and the Southern Railway, the dividend margin had already been exhausted, there was, of course, no alternative but to scale wages down in the attempt to prevent utter collapse.

Now that revenues are again increasing and the outlook brightening, what do we find? The first step is not in the direction of giving the proprietors some remuneration after their going for several years without anything; that will come by and by, if the present conditions continue. Instead, the first concern is to see that those who give their services to the roads are restored to their former status in this matter of pay. Nor is this the result of a hasty or sudden decision. It is a policy deliberately entered upon a long time ago, and now being carried out in accordance with this early purpose and resolution.

Following the restoration of wages an increase of the number of employees may be expected, and the accompanying enlargement of operations with the work to be done upon extensions, improvements and new lines. The effect of this upon other industries is thus summarized by the Chronicle:

How many extra men, for instance, are given employment in the iron and steel trades; how many in building locomotives, how many in manufacturing cars? Go a step further, and study the numberless ways in which the extension and increase in spending power of this growing mass of employees is going to act and interact on all the various lines of industries throughout the length and breadth of the land. With such results before him, let no one hereafter imagine that harm can be done to the railroads without involving the whole community and the whole range of industries.

The incident which has, strange to say, inspired very little comment has nevertheless been a magnificent object-lesson. And the Chronicle has pointed the moral in kindly tone that will not be without valuable results. The various interests of this country are too interdependent for one to suffer without affecting many others. It is bad enough when that suffering is unavoidable. When it is caused by blind folly it is inexcusable.

A bill has been introduced in the North Carolina legislature for the establishment of a textile school. It provides for a board of directors, including many of the progressive men of the State, and that they shall select a site for the school in any city or town which, other things being desirable, shall pay to the board \$15,000 for the work of the school. Upon such a donation being made \$15,000 more is to be drawn from the State treasury. Far-seeing men of North Carolina have for about two years past been active in the general movement which has resulted specially in the textile department at Clemson College and at the Georgia School of Technology. The passage of this bill by the legislature will enable the friends of the undertaking to concentrate their efforts, and if we are not mistaken there are communities in North Carolina which will make that concentration successful.

The Vindicator-News, of Franklin, Va., referring to the Southern Farm Magazine, says:

We have received the number of the Southern Farm Magazine containing the article of ex-Governor MacCorkle, of West Virginia, on the relation of corporations to the South and the agricultural pursuits of this section. This is one of the ablest and most convincing arguments on the duties and future of the Southern farmer that we have ever seen. This magazine is published by the Manufacturers' Record, of Baltimore, and should be in the home of every farmer in the country. We take great pleasure in reading this magazine, and regard it as the best publication of its kind in the South.

HELPED BY RAILROADS.

Their Contribution to Birmingham's Position in Iron.

[Special Cor. Manufacturers' Record.]

Birmingham, Ala., January 17.

To hunt for the iron market here is, literally, like looking for a needle in a haystack. It has retired for the present. Buyers all during the past week were probing for it, but did not succeed in uncovering it. One order from the East and one from the West, each for 10,000 tons basic iron, were received and declined. It is not so much a question of price as one of ability to furnish the iron. The same interest that declined to price basic iron declined to price 25,000 tons of other grades. The inquiry has been fine, and actual orders were very encouraging, but current transactions were light. There were light sales of gray forge at \$7.25, followed by others up to \$7.40, and ending by a sale of 200 tons at \$7.50 cash. One quotation was given at \$7 for gray forge, but the maker of the price had none for sale for spot, nearby or more forward delivery. Some of these small lots sold are not furnace sales, but the realizing of profits on the tail ends (not delivered) of lots purchased in the past. Some No. 2 foundry went at \$8.25 and some went at \$8.25, less commission for cash; some sold at \$8.50; some No. 2 soft sold at \$8; but the sum total of all the sales for the week could be covered in one medium-sized order. The furnaces are indifferent to fresh business. Some are very well sold up to production for the first quarter, while some have let go freely for the second quarter of 1899. For those deliveries there is comparatively little iron to spare on new business. But a spurt in prices always brings out a lot that was overlooked. The last half of 1899 has been invaded very lightly.

The railroads have been very conservative in freight rates on iron. The truth is, our present position in the trade could not have been attained without their co-operation. They will, naturally, in time, want their share of the prosperity that is covering the country to be evidenced to them in increased freight rates. The furnaces realize this, and are not inclined to take much risk on long sales, with a probability of higher freight to pay in the not remote future. Six months ahead is about as long as they can expect to get protection on freight rates.

Reports indicate that iron is yet going out of warrant yards, but there are no new transactions reported in warrants. Shipments are free. As the output for this quarter is well sold up, they will continue to be free for some time. Prices are getting to a point where the export trade hesitates and halts, for there is little, if any, margin of profit left at current values. If there was, there would still remain the inability to furnish the iron.

The Sloss Iron & Steel Co. announces that, commencing February 1, Mr. Kenneth Robertson will be the metallurgist of the company. He comes from the Federal Steel Co., at West Superior. Since last letter the Addyston Pipe Co., by its president, D. McLaren, has purchased a tract of 100 acres of land convenient to the furnaces at Bessemer, Woodward and Ensley. Mr. McLaren announces that as soon as the purchase is ratified at the stockholders' meeting this week, and the necessary formal authorization to proceed in the work has been given, operations will promptly commence on the new plant, and that by June it will be turning out work. One of the "On dits" of the week is that a new railroad is projected between Birmingham and Pensacola, to be an air line and double track. Mr. John Harrison, of Howard-Harrison Co., is

named as one of the projectors, and the syndicate is quoted as amply able to finance it. Details and practical evidence are promised in the near future. At present the scheme is all on paper, and it looks favorable. Another line that would be a strong factor in affairs here is said to be arranging to make this city a terminus, i. e., the Seaboard Air Line. The building of two short links, greatly less than 100 miles, would bring it via Cartersville, Ga., and over the East & West Railroad to both Anniston and Birmingham. Certain things have cropped out lately that give decided color to the probability of the report. At Ensley City the ten huge stacks of the steel plant are practically completed, and progress on the various industries is so advanced that one can now form some idea of their magnitude. They excite the astonishment and fix the inclination of those who come to see in person how affairs are before pulling up stakes where they are and moving to this "happy land of Canaan."

J. M. K.

Eastern Iron Markets.

[Special Cor. Manufacturers' Record.]

Philadelphia, Pa., January 18.

The pig-iron market is returning to itself after a few weeks of disturbance. The enormous demand and the threatening condition of stocks has had less influence on prices. The bulk of the business done has been closed at previous quotations. Makers decline to accept orders this week at less than the quoted rates—No. 1 foundry, \$12 to \$12.50; No. 2, \$11.50 to \$11.75; No. 2 plain, \$11 to \$11.25; standard mill irons, \$11; ordinary, \$10.50.

Billets are between \$19 and \$20, and buyers who would like to purchase are hesitating and agents are seeking inside information from Pittsburg. A very uncertain feeling prevails over this sudden and great advance. An inquiry among buyers shows there is great, and among some an urgent, need for stock. Our private information is that Western buyers are piling in orders in order to be first served.

The bar mills are busier than for years. One reason is that the carbuilding demand takes away much competition and leaves us in possession of our own territory. Tested bars are in urgent demand at 1.25, and may go to 1.30. Special steel bars are as high; soft steel, a tenth less; refined, 1.20, and common, 1.10.

All other branches of the iron trade are active for small lots, but the pressure of large orders has subsided. Manufacturers are glad of it. The sheet and pipe and tube mills are well filled up. Parties who need plate are urging their cases, but it may be a week or two yet before large orders can be wedged in. Plates for boiler use have sold at 1.50, and special thicknesses higher; flange steel, 1.70 to 1.80 in some cases; angles are 1.40 to 1.50, and beams and channels run from 1.40 upward, according to size. There is much business standing in line for acceptance, and in a few instances enterprises are being allowed to stand still until specific assurances can be had as to deliveries.

There are also good reports in this market about steel rails, though only a moderate business has been placed. Standard sections are \$18, with a chance to go higher, and lighter sections sell at one to three dollars more. There are some girder inquiries now in hand and big business behind them. Old iron rails are high, firm and scarce, and scrap of all kinds sells easily at top prices.

It is announced that \$150,000 new capital will be invested in the Avery (La.) salt mines. The shaft at Retsof has reached a depth of 1400 feet.

POLICY OF THE SEABOARD AIR LINE.

Mr. John Skelton Williams Talks of the Future of the Railroad.

The transfer of the control of the Seaboard Air Line system to a syndicate organized by Messrs. Middendorf, Oliver & Co., Baltimore, and John L. Williams & Sons, Richmond, is in some respects the most important event in the railroad history of the South since the reorganization of the old Richmond Terminal properties into the Southern Railway Co. The Seaboard, with its 1000 miles of railroads and its line of steamboats from Baltimore to Old Point, Norfolk and Portsmouth, has been a leading factor in Southern upbuilding, and its future is a matter of profound interest to the whole central South. Under the management of President Hoffman and Vice-President St. John, it has been an aggressive worker for the South; it has aided in developing the whole country tributary to its lines; it has encouraged the growth of manufactures, the diversification of agriculture, the improvement of the villages and towns along its line, and it has materially aided in attracting the attention of capitalists and settlers to this section. Its past has been one of great credit to its managers and of vast benefit to the South. That the new owners will follow along the same line and still further broaden its work may be accepted without question, for the men who are interested in the purchase of this system are among the very foremost leaders in the development of the South. Their record, covering the investment of millions of dollars in the South and the management of many great undertakings that have redounded to Southern prosperity, is an evidence of what they will do with the Seaboard.

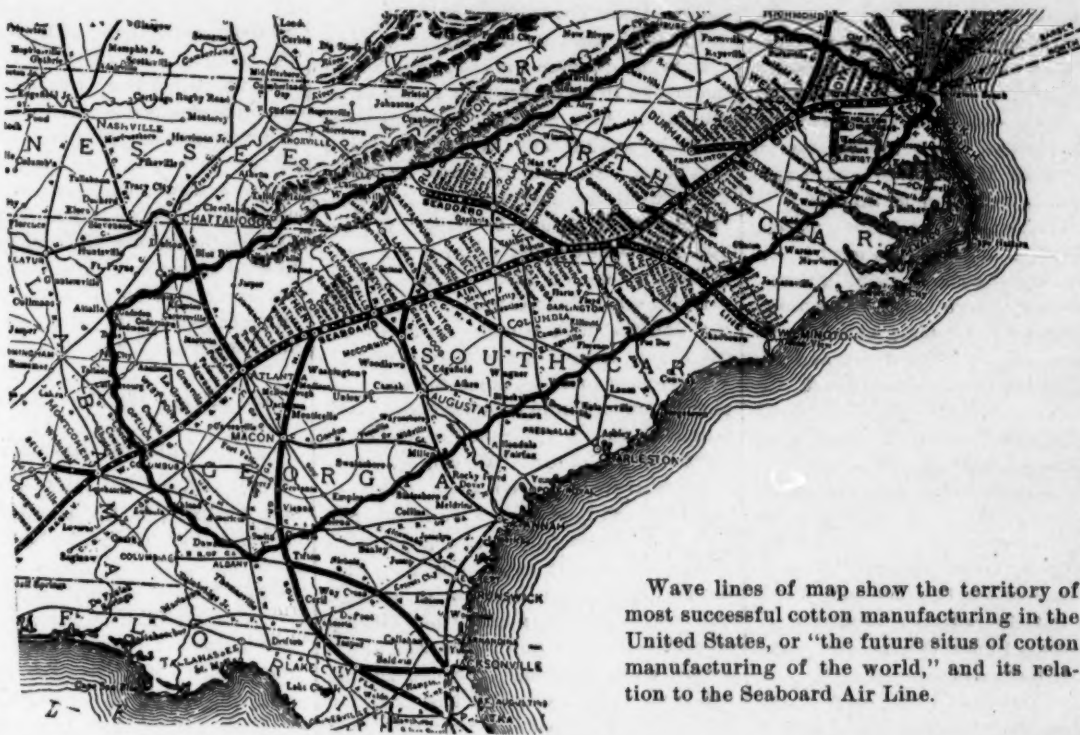
In an interview with the Manufacturers' Record, Mr. John Skelton Williams, president of the Georgia & Alabama Railroad and also president of the Richmond Trust & Safe Deposit Co., who, it is believed, will be the new president of the Seaboard Air Line system, said:

"The men interested in this purchase recognize, first, the remarkable combination of wealth and traffic-creating resources of the country stretching from Norfolk and Portsmouth (the Atlantic terminus of the line) to Atlanta, and, secondly, the inherent strength of the Seaboard system and its great possibilities. Reaching from Norfolk to Atlanta in almost an air line, the Seaboard system runs through the very heart and center of what has been called 'the future situs of cotton manufacturing of the world.' Its branch lines bisect it, stretching from Wilmington, on the coast, to the mountains at Rutherfordton, and with its many connections, it covers almost this entire territory. The cotton mills immediately on the line of this road represent an investment of probably more than \$12,000,000, and operate over 500,000 spindles, while mills that can be reached by the connections of this system would add easily another half a million spindles to the textile interests already, in whole or part, tributary to the Seaboard. These mills have been notably successful, demonstrating in every way the advantages of this territory for this industry. With the steady development of the practically unlimited water-powers along this line, and the rapid expansion of cotton manufactures, as yet practically in its infancy as compared with what it will be, it is reasonable to predict that no other equal railroad mileage will in the future be able to show a greater cotton industry.

"Drawing a line from Lynchburg, Va., southwestward along the foothills of the Blue Ridge mountains, stretching past

Rutherfordton, Charlotte and Rome, Ga., to Gadsden, thence southeastwardly through Eufaula, Ala., to Albany, Ga., thence northward on a straight line from Albany to Norfolk and back to the starting point at Lynchburg, we have marked out the future situs of the cotton manufacturing of the South, and that means, so far as human foresight can predict, the future situs of cotton manufacturing of the world. This territory is, roughly speaking, about 500 miles long by 100 to 150 miles wide, and covers an area of from 50,000 to 60,000 square miles. It has advantages for cotton manufacturing unequalled by any other country of the world, and through the very center of this territory runs the Seaboard and its branch lines, as shown by the accompanying map. Briefly, some of these advantages may be enumerated:

- "(1.) Elevation above sea level.
- "(2.) Abundant and cheap water-power and coal.



Wave lines of map show the territory of most successful cotton manufacturing in the United States, or "the future situs of cotton manufacturing of the world," and its relation to the Seaboard Air Line.

"(3.) An abundant supply of native American operatives.

"(4.) Low labor cost, because of low cost of living.

"(5.) Unsurpassed healthfulness.

"(6.) Cotton supply immediately at hand.

"(7.) Cheap and abundant transportation to the markets of the world.

"This favored belt of country is mainly what is known as the Piedmont slope. At its southeastern boundary it has running at the foot of the falls of the rivers an elevation of about 450 to 500 feet above sea level, and along a line running through its center from northeast to southwest an average of 700 to 800 feet elevation, while nearer to the foothills of the mountains it rises to from 1000 to 1500 feet above the sea. Nearly all of the area of this belt is of primitive or volcanic formation, with gneiss and granitic ranges, from which come the best of building and foundation stone, which is nearly everywhere in this territory to be had in abundance and at but little cost other than that of quarrying.

"This belt of country is moderately undulating, hilly and rolling, with but few outlying mountains, as the great Blue Ridge mountain range runs to the northwest and parallel with it. It is noted for its healthfulness. It is well supplied with pure water from abundant mountain springs and rapid rivers; has an equable

climate, neither too cold nor too warm, and an atmosphere unrivalled for cotton spinning. In much of this area but little artificial heat is necessary for spinning-rooms, and this only from November to April, and for this reason the operatives can be housed and kept warm in the cold months at one-half the cost in New England. Its summer climate, contrary to the supposition of many New England people who have never visited this region during midsummer, is one of its greatest charms. It lacks the sultry, enervating heat of large portions of the more northern States, and, on the contrary, has a bracing air and cool nights that afford refreshing sleep.

"Studying the map, one will note the James, the Roanoke, the Tar, the Neuse, the Cape Fear, the Peebles, the Wateree, the Congaree, the Savannah, the Ogeechee, the Oconee, the Ocmulgee, the Flint and the Chattahoochee rivers, with their tributaries and branches, crossing this belt from their mountain sources, flowing towards the Atlantic and the Gulf. The aggregate powers that could be furnished by these rivers has been roughly estimated to be several million horse-power. As this belt is free from severe winters,

ice obstructions are practically unknown, and floods are rarely troublesome. Nearly all of these streams have their origin in the foothills of the mountains, are never-failing and suffer little from drouths in summer, as the rainfall of this belt is uniform and seldom fails. But it is not to water-powers alone that this cotton-spinning belt will owe its supremacy. It can more than compete in cheap steam-power with either New England or Old England. It is now abundantly supplied with coal from the Pocahontas district on the north, and the Alabama coal regions on the south.

"But cotton is only one industry. This territory is rich in its advantages of soil, minerals, lumber and climate. The great tobacco business of Carolina, with its millions of invested capital, is largely centered in the country reached by the Seaboard. At Norfolk-Portsmouth we have for our Atlantic terminus what is practically a city of 100,000 people, and around Hampton Roads, with Norfolk as the central point, there is destined to be a population of over half a million people before very many years have passed, for there is to be one of the world's greatest commercial and shipbuilding centers. At the other end of the line, Atlanta, with a population of about 110,000, has already become one of the most important railroad and distributing centers in the coun-

try. Probably no other place in the United States of equal population is so widely known and appreciated as Atlanta, which is distinguished for its concentration of Southern energy and business activity. Between these points there are many prosperous towns and cities, such as Charlotte, Raleigh, Columbia, Athens, Durham and many others, all of which are growing steadily.

"With some extensions, which it may be found advisable to perfect in rounding out the system, and some branch lines to other manufacturing towns, the Seaboard system can be made one of the strongest in the country. As there is practically no limit to the possible development and growth of the country which it traverses and the cities which it reaches, it is not overstating the case to say that no other railroad in the United States has a better outlook for a steady growth in traffic.

"Under the able management of Mr. Hoffman and Mr. St. John, the Seaboard has been a potent factor in the development of the South. The policy of development will be pursued with vigor, and the people along the line may be assured that there will be no backward step. It will be the aim of those who have now

come into control of this system to give every possible aid and encouragement to the extension of commercial interests at the seaboard, to the growth of manufactures along the entire system, to the diversification of agriculture, and to the most intelligent work of drawing population and new capital into this territory. We recognize the mutuality of interest—that the prosperity of the road depends upon the prosperity of the country—and with that in view we shall work for the advancement of the whole country which is tributary to our lines.

"The South has made wonderful progress, but what it has accomplished is only the beginning. Its growth in the next few years will, I am sure, be greater than that of any period in the past, and in this progress we expect to see the Seaboard do its full duty to the country and reap the full benefit of increased business.

"I may add," said Mr. Williams in closing, "that our policy is to maintain the Seaboard as an absolutely independent line, and there need be no fear as to its absorption by any other system. It will be abundantly able to take care of itself and to play a leading part in every good work for the advancement of the South, and we hope not only to retain all the friendly interest given to its former management, but to still further strengthen its hold upon the good-will of the people."

FOR THE INTERESTS OF ALL.

Maj. J. F. Hanson's Reasons for Advocating the Shipping Subsidy Bill.

Editor Manufacturers' Record:

I did not examine Senator Hanna's shipping bill until yesterday. There are many considerations in favor of its adoption, and none, to my mind, against it, unless from the fact that it does not ask the government to do enough. In what it proposes in the way of public expenditure to accomplish incalculable benefit to the country it is moderate to the point of conservatism, not to say timidity.

I will not trespass upon your space to the extent that a thorough examination of this measure would require, nor enter into many details touching the considerations in its favor. We have in our home markets the best demand for our products, and our consumption per capita exceeds that of any other people. Our productive methods have been stimulated and developed to such an extent during the last twenty years that many believe that, upon a normal production and normal consumption, we have an overproduction. Whether this is true or not we cannot determine, because there is no known basis upon which to make the necessary computation. However this may be, we know that we are approaching, if, indeed, we have not already entered upon, the conditions that have long existed in Europe, where the question of production has been solved and superseded by the question of markets.

These conditions all the leading nations of Europe have attempted to meet in one of two ways, and some of them in both—expansion and foreign steam communication. Beyond the pecuniary benefits arising from home or foreign demand for products, especially manufactured, the broader question, if there can be a broader one, of promoting contentment and peace at home through steady and profitable employment is well understood by every crowned head and cabinet in Europe. The men who are behind the movement that takes form and finds expression in Senator Hanna's bill, which at last is but the reflection of intelligent public sentiment upon this question, read the signs of the times correctly.

There are those who will confuse the public mind now, as they have always done on similar occasions, with reference to the purposes and effects of this measure. They will also insist that the failure of this country to build up its merchant marine is due to other than the real cause, and that the want of proper distribution of our products to foreign markets comes from what they maintain is a wrong fiscal and industrial policy. The scope of this article will not permit the discussion of the latter proposition. But no fair-minded man will deny that 1898 was a record-breaker in our exports of manufactured goods. Neither will such deny that this country is very prosperous. If this is so, it must be true that our laws governing our internal trade are wise in so far as they affect our production, and that their effect upon the people is wholesome because the people are prosperous.

The effect in every country of carrying its foreign trade under its own flag is everywhere admitted to be beneficial, and largely so. The best authority upon the subject estimates that 89 per cent. of our exports and imports is carried in foreign ships and under foreign flags and under foreign influence naturally and legitimately opposed to us. If, under such conditions, our exports of manufactures was large in 1898, what would have been the difference in our favor in foreign consumption of the same if our facilities for their distribution had equalled those of

our rivals? The statement of this branch of the case is all that is needed. This is intended to be a fair statement, and upon it the argument is already made.

Assuming that the necessity for a great merchant marine is admitted, the question of how to get it is the one that we must settle. Upon our experience it is certain that private capital, unassisted by the government, will not supply it. American ship-owners, unaided by our government, cannot compete with foreign ship-owners upon equal cost for construction and maintenance of ships when their foreign competitors are largely assisted by their respective governments. In cost of ships we can closely approximate European standards. The difference in favor of foreign-built ships is due to lower wages. This also applies to the running of ships. We may be able by superior methods to equalize these differences, other conditions being equal. It is absurd, however, to suppose that we can pay more money for ships and more wages to man them than our competitors pay and do our share of the carrying trade at their rates, when their income is supplemented by sailing fees or subsidies in other forms, when we have no such income. What government aid will be required and what it will pay us in every way is the question that Congress should undertake to settle speedily and without prejudice. I am not sufficiently informed to make a statement of value covering this point. Nor is it necessary for me to know what the cost would be in determining what should be done. Of our ability on terms fairly equal to our competitors to do our share of the foreign carrying trade there can be no doubt. Of the benefits that would accrue to the country at large I am equally confident. We are able to do as much for our shipping in proportion to commerce and population as England, France or Germany are doing for theirs. We can take care of ourselves if placed upon terms of equality with them, and I am in favor of such expenditure from the common treasury as is necessary to place us upon such terms. It is not a question of what it will cost, or if we can afford to do it, but of certain returns and if we can afford not to do it. Besides, the expenditure will come from a common treasury, and will benefit every man, woman and child in the country. We are now independent of the whole world in manufactures. This is true with reference to agriculture and of almost every other branch of production. For every article of exclusive foreign production that is essential to us, when measured by dollars and cents, we have a surplus on last year's custom-house showing of an equal amount. We are deficient in shipping more than in anything else, and in this respect are dependent upon foreign supplies. This is true of our carrying trade in time of peace, and equally true when measured by the exigencies of war. As a result, we reach our markets abroad through agencies opposed to our interests, and annually send out of the country a very large sum of money that goes into the hands of foreign ship-builders, laborers, owners, commanders and crews. We should sustain our own ship-yards and employ our own labor in the building of ships, and employ our capital and men in running them, and save to ourselves the amount that we are thus unnecessarily paying out. In case of war, great ship-building plans and a large supply of steamships properly constructed for transport and auxiliary cruisers, with trained men to man them, would greatly add to our means of material defense. This within itself would not only be a great economy, but would avert the danger to the country of reliance on foreign sources of supply. We

shall not soon forget, or ought not, the embarrassment of our government in its efforts to meet public demand for a stronger navy in the recent war with Spain. Under the neutrality laws, after war was declared, nations at peace with both Spain and the United States, and intending to remain so, could not supply us with ships of war. It was with difficulty that we could secure suitable transports. Before the strength of the Spanish navy was ascertained we would have given any amount of money for a few first class ships. It would be interesting to know what we would have paid to have had the Oregon at Key West when she started on her long voyage to strengthen our Atlantic fleet. We should be in position to take care of ourselves in peace and war, and the way is clear to accomplish this. If our own experience does not point the way, it has been marked by other countries, and we must follow their example or abide the permanent injury of failure to do so.

Every consideration of interest, private and public, and of patriotism, appeals to Congress to upbuild our shipping by the same method that through town, city, county and State, as well as federal aid to railroads, we have secured our magnificent connections with every part of the country. All the money lost in this way was either bounty or subsidy for better trade connections, and who regrets it? What community or State would take its money back and give up its railroads? We now want to go out for the trade of other countries, and to get it in anything like the proportion to which we are entitled we must reach them by prompt mail, passenger and freight service. The government must help. It represents us all, and should act for the interest of all.

J. F. HANSON.

Macon, Ga., January 13.

Data for History.

The handbook for 1899, the Baltimore Sun Almanac, is the twenty-fourth annual issue of this invaluable publication. Its review of the many thrilling events of the past year is comprehensive and accurate. Naturally, the incidents of the war against Spain occupy a large space in the almanac. To sift the facts from fiction and rhetoric has been no easy task, but it is a task that The Sun, noted for its fidelity to truth and its ability in condensation, has been equal to.

Its summary of the war by dates ranges from January 24, when the battleship Maine was ordered to Havana, to December 27, when General Brooke arrived in Havana to assume the position of military governor of Cuba. With these succinct facts for reference, the reader is also given extended accounts of the destruction of the Maine, the battle of Manila bay and the surrender of that place; the naval battle off Santiago of July 3 and the surrender of that place; the wonderful trip of the Oregon; the sinking of the Maria Teresa; the conquest of Porto Rico; the conquest of Guam; the sinking of the Merrimac, with the similar exploit of Lieutenant Cushing in Roanoke river in 1864; the death of Ensign Bagley; the terms of the peace protocol and the treaty of peace; the list of Spanish troops surrendered; the United States army casualties, including the names of the officers killed and wounded in Cuba, Porto Rico and Manila; the death of General Garcia; the list of Virginia and Maryland commands in the volunteer army; the record of the Dixie, manned principally by Maryland militia, and a variety of other information bearing upon the developments which occupied the center of the stage of 1898 history.

The space given to this feature has not diminished that devoted to the standard

features of the almanac, such as the church record, the weather facts, sporting news, necrology, political memoranda, municipal affairs, and information for the sportsman, mariner, banker and the housewife. In this connection must be mentioned the special articles—"Diseases of Plants," by Prof. C. O. Townsend, State pathologist, and "Remedies for Insects on Plants," by Prof. Wm. G. Johnston, State entomologist—of great practical value to farmers of Maryland and the South; the reconquest of the Soudan, the losses of the steamships La Bourgogne and Mohegan, the assassination of President Barrios and the Empress of Austria, the death of Bismarck and Gladstone and Queen Louise of Denmark, the coronation of Wilhelmina, Queen of the Netherlands, the marine disasters of November and the rescues by the Vedamore and the Maria Rickmers of the crew of the Londonian are also summarized.

Nothing is included in the almanac for the purpose of filling space, but on every one of its 168 pages are facts or statistics of permanent value to men and women who desire to keep abreast of current events and who will have nothing but the best authority as their guide. This almanac is not for sale, but is issued for use of subscribers to The Sun, who find the wise, conservative policy and carefulness as to details of that influential paper reflected in its annual supplement.

American Nuts and Bolts.

A remarkable instance of the result of American manufacturing competition in England is given in a circular-letter sent to the principal nut and bolt manufacturers in the Birmingham (England) district by well-known merchants of Wolverhampton, who call attention to the fact that the prices of bolts and nuts now paid to American manufacturers are from \$10 to \$20 per ton less than the prices at present ruling in this country, and adds: "The quality of the bolts and nuts is fully equal to the very best quality made in this country. Most of our largest customers for bolts and nuts in Australia and South Africa have stopped ordering from us, informing us that they are purchasing from the United States, and others, while sending us their orders, instruct us to purchase from America as long as prices are so much lower than in England." United States Consul Halstead, at Birmingham, suggests that the sale of American goods at a price so much below that of English goods is unnecessary to advance American trade.

Bridges for B. & O.

The Baltimore & Ohio Railroad Co. has arranged to rebuild fifty-one of its bridges on the division west of the Ohio river. The Youngstown Bridge Co., of Youngstown, Ohio, will erect thirty-one bridges on the Central Ohio division between the Ohio river and Newark, Ohio. The Pencoyd Bridge Works was awarded the eleven bridges on the Lake Erie division, Newark to Sandusky, and the Edge Moor Bridge Co., of Wilmington, Del., will erect nine bridges needed on the Chicago division. The total cost of these bridges is in the neighborhood of \$300,000, and it is expected that all will be in place by September.

The annual meeting of the Sumter Cotton Mills' stockholders was held last week at Sumter, S. C. The annual reports of the executives showed most satisfactory progress during the year just ended, and the finances are in good condition. The directors have been authorized to fill the mill building to its fullest capacity, and will probably buy the additional equipment this year. The present instalment is 3000 spindles.

AMERICA'S GREAT BOURSE.

Magnitude of a New Force in the Business Development of the Nation.

STUDY OF THE PERTINENT POINTS.

Commercial practices of a few decades ago are as obsolete as the stage coach. The same forces that have revolutionized the methods and mechanisms of science have been equally active in modernizing business customs. Broad-gauged equipment is the order of the day in the management of the trade interests of the country. Adjuncts that introduce greater economy, more direct relations, facilitate the interchange of products, or augment confidence, are sought for by the ambitious small trader looking to the future none the less eagerly than by the great commercial leaders who can command the assembling of such forces.

The American idea of grasping every effective instrument to promote business is a dominating influence in producing the magnificent results which are each year growing greater. That aptly-coined idiom—captains of industry—applied to the men who marshal successively the strongest array of such agencies indicates that militarism is not alone in the ranking honors. The threshold of the new century offers an alluring prospect to these leaders, ushering in what the world tacitly, if not openly, admits is a new era in American commerce. If a vantage point was available from which could now be gotten an insight into the councils of the aggressive men shaping the future of large and small business interests, the first impression would be the pronounced determination to strengthen the machinery with which they carry on business.

Demand for Advanced Methods.

It is this constantly looking after equipment, mental and physical, that marks the successful business man. He always is in tune to respond to some additional force that offers to increase results. A study of that wonderful and many-sided beehive of industry, the Philadelphia Bourse, lends force to the general characteristic of the business men of this country to take hold of any advanced method of doing business. When a few months over three years ago this institution was opened, its mission was so unknown that even the title adopted was a new word in the vocabulary of many persons. Now, that it is becoming understood, each month evokes some new evidence of the wisdom of the bold spirits who were its founders. This institution is local only in the sense that it happens to originate and dwell in the city of Philadelphia. Its benefits are sharable by the country at large, and a trip through the Bourse will tempt one to believe that the business interests outside of Philadelphia are securing a lion's share of its advantages.

The work the Bourse is doing is unique and so thoroughly wide-ranged in its character as to command the admiration and co-operation of men on the alert to take hold of newer ideas of doing business. It aims to offer under the roof of a great 10-storied building all the elements that tell in commercial development. Many of these are available without cost, and the atmosphere of non-restraint with which the crowds move through the building, taking up new ideas and unconsciously suggesting new ones to the wide-awake working force of the Bourse, is a feature. Something in detail about this institution will be of practical value to the readers of the Manufacturers' Record unacquainted with its advantages. Para-

graphed here are details intended for a quick comprehension of the scope of the Bourse.

Features of the Bourse.

Three distinct features of the Bourse are:

First—The Bourse or General Exchange.

Second—The Exhibition Department.

Third—The Offices.

In explanation of the first, it may be said that all organized exchanges and wholesale business associations of the city, with but two exceptions, are located in the Bourse. Pausing to appreciate the significance of this in a city of such a magnitude as Philadelphia, such a concentration is of more than passing interest. To go to headquarters is a characteristic of the directness with which business is now done. The Bourse is headquarters for such centers of information as the National Association of Manufacturers, Commercial Exchange, Maritime Exchange, Grocers and Importers' Exchange, Drug Exchange, Lumbermen's Exchange, Hardware Merchants and Manufacturers' Association, Coal Exchange, Oil Trade Association and other institutions representing collected forces that are powers in the general business of the class or classes to which they are devoted. This means, then, that the men identified with the particular branch of business covered by each separate organization naturally gravitate towards the Bourse.

Machinery and Manufacturers.

As Philadelphia is a city of large daily transient population, the net result is that the Bourse is the objective point of the visiting merchant and manufacturer. A chief attraction is a permanent exhibition in the building. Here we have 54,000 square feet devoted to the display of manufactured goods, machinery and mechanical appliances of every description. The striking feature of this exhibit is that it offers many novelties, and the exhibitors, coming from all sections of the country, enter heartily into the idea. Two concerns making kindred products have a display hardly ten feet square which cost over \$4000. But it is complete. It is the Bourse idea, broad-gauged. A new machine, capable of producing results that promise great strides in a certain industry, is to be seen for the first time. No duplicate machine yet exists in this country. It is in operation at the Bourse turning out its product before the eyes of those interested. There is a man there who answers all questions about the invention.

The display of machinery and products are of the standard classes. Names that are synonyms for success in various lines are seen on all sides. Under the most favorable circumstances an intending purchaser can see machinery of various classes from the leading manufacturers. In an hour knowledge can be obtained that would take a week or more in traveling from factory to factory. That this is appreciated is evidenced by the straight tracks made for the Bourse by intending buyers. Foreigners have heard of the plan and some substantial sales are recorded by exhibitors. Of course, everything under the sun is not in the Bourse, but if it is not there the avenues of getting it are to be found. That is what the officials of the Bourse are for, and for this

reason a library of practical literature is maintained.

In the machinery division a capable superintendent, whose training has been a mechanical one, is there to be queried about the machinery displayed and that which is not. He has at hand a well-selected collection of mechanical literature for reference. Some of the exhibitors have their agents present to discuss the points of their machinery. Steam, electric, gas or water-power is available to run machinery, and spaces from twenty square feet upward can be leased by exhibitors. With the spaces now taken and spoken for, it will not be long before this division will resound with the buzz and whirr of a greater variety of machinery than is to be found permanently assembled in any other one place in the world.

Headquarters for Business.

Extensive as is the machinery department, twice the space is given to the division of manufactures. This feature, now including a variety that will interest and instruct one on novelties in many lines of products made in many States, is just at its infancy. To become known is half the battle towards success with men, and it is more than this to manufactures. There isn't an hour that someone is not puzzling where can be found products to meet some special want. Instead of making a tour of the country, either by mail or in person, communication with the Bourse will either find it, or there will be forthcoming the knowledge where it is to be found. Mr. Thomas S. Welsh, who is superintendent of the exhibition department, has some posers shot at him by seekers after information, but the superb organization of the Bourse readily responds with a satisfactory answer.

A suite of three large rooms has been set aside on the seventh floor for the exclusive and free use of such visiting business men in which they can transact all of their business while in the city. There are a number of small writing tables, public stenographers are within call; telegraph, messenger and carriage calls are at hand; the daily papers are kept on file, and all conveniences and necessities for the transaction of business are furnished. Two rooms to the right and left of the writing-room are comfortably furnished for use as conversation-rooms, where buyer and exhibitor can get together and talk over their business, and the visiting merchant can meet his business friends, having previously notified them that he has made the Bourse his headquarters. One need not leave the building even for lunch, as this is also to be had in a well-equipped restaurant, with an orchestra to enliven the luncheon hours.

Quick News Pointers.

On the main and second floors the popular conception of the Bourse is exemplified. Commercial intercourse is here handled at the best possible advantage.

In the center of the main floor, for the benefit of all the members of the Bourse, are three large quotation boards, on which are kept posted the prices of the various commodities, such as grain, coffee, cotton, etc., and stocks. This information is received by ticker service, and is posted as fast as possible by boys upon the boards. One board is also devoted to what is known as "financial gossip," also received by tickers.

In addition to this, a complete system of news service has been provided whereby cables are received daily, giving the closing price in the London market of various goods, such as sugar, oils, chemicals, drugs, wool, metals, etc., together with reports of the condition of the markets for textile goods, iron and steel trades in their respective centers.

A complete news service is also arranged whereby news is received at noon daily from New York as to the state of the markets for various goods. This news is received by long-distance telephone and is collected by a corps of reporters who gather their information between 11 and 12 o'clock, when it is transmitted by telephone.

There are also located on the floor telegraph offices at each end, one of the Western Union and the other of the Postal Telegraph Co.; also, a telephone service for the free use of the members to all local and long-distance points. There are also pay stations for the use of the general public. Coat-rooms are also placed at each end, where members can check their wraps while on the floor.

The galleries are divided into newspaper-rooms, where the leading dailies from the principal cities in the country are kept on file; the commercial library, in which are to be found all governmental, State and municipal reports, encyclopedias, directories and books of various kinds treating of business subjects. Then there are three rooms, sometimes known as "Commercial Clubrooms," where the members can meet their friends, have quiet talks together, read the leading periodicals or illustrated papers, or transact their correspondence; in addition to which there are several committee-rooms for the use of committees from the different trades which may have occasion to use the same from time to time.

Postal Receipts Over \$1,000,000.

The fact that the branch postoffice in the Bourse does a business of over \$1,000,000 a year in stamps, money orders, etc., exceeding in this respect such large cities as Baltimore, Pittsburg, Buffalo, Cleveland and Detroit, is sufficient testimony that this is a great center of business activity.

The office feature of the building is the employment of space not needed for the Bourse idea for office purposes. There are over 350 offices, and naturally these are largely occupied by concerns whose business is with the many classes to whom the Bourse appeals, and this takes in all branches of human effort. There are reserved a number of offices for the use of commercial travelers visiting the city.

Eight Acres of Floor Space.

To house such an institution there is occupied in the heart of the city over an acre of ground. The lot is 407x132 feet, and the building is 364x132 feet. There are over eight acres of floor space. More than 30,000 square feet are given up to the general-exchange feature. On the site and building \$2,400,000 have been expended. These figures demonstrate that the Bourse is an enterprise of gigantic caliber, and it also provokes the conclusion that the men who carried it out are more than captains of industry, but leaders, whose influence in establishing this really national institution is reaching out through this means to spread benefits throughout the country wherever progress is understood and appreciated.

W. J. CASEY.

Bills have been introduced in the Arkansas legislature exempting from taxation for a term of years investments in mining and manufacturing industries in the State, and to encourage the building of railroads by granting 500 acres of State lands for each mile of railway built.

The Jacksonville (Fla.) Board of Trade has selected as officers for this year: President, C. E. Garner; vice-presidents, L. Furchgott and W. S. Ware; members of the board of governors, W. W. Cummer and B. H. Chadwick.

COMMERCE.

This department is devoted to a record of the rapidly developing commerce of Southern ports.

SHIPBUILDING IN GERMANY.

**Greater Activity Than Ever Before—
Alive to American Competition.**

[Special Cor. Manufacturers' Record.]

Berlin, Germany, January 5.

In shipbuilding there is at present greater activity in German yards than ever before; and, moreover, the German shipbuilders are constructing larger and better vessels than they have ever undertaken before. They claim now that they are fully the equals of English builders, if not superior to them. The Vulcan Company at Stettin is now building a steamer that promises to beat everything afloat, both in size and speed. This is a steamer, the "Deutschland," for the Hamburg-American Line. It will ply between Hamburg and New York, and it is promised that this ship will cross the Atlantic in five days. The "Deutschland's" machines will have an indicated horse-power of 34,000. The steamer is to cost nearly \$3,000,000. The Vulcan Company is now negotiating with the Hamburg Senate for the purchase of a large property in the vicinity of that city, and it is understood that the company will establish there one of the greatest shipbuilding yards in the world.

The subject of American competition continues to attract attention, but just at present the Germans are not a little relieved at learning that the boom in the United States has taken a new spurt forward.

The evidence is multiplying that American competition is troubling the Germans in neutral markets. The German consul at Nagasaki points out in a recent report to his government that, whereas locomotives were formerly supplied to Japan exclusively by the Germans, the Americans had succeeded quite recently in disposing of locomotives there; also that the electric plant for a hotel in Nagasaki came from the United States. The Westphalian Wire Works Co., at Langendreer, recently held its annual meeting. The works were operated at a loss during the year, and in explanation of this fact the report says, rather dolefully: "The prices of wire manufactures, which, especially owing to American competition, were already at the beginning of the year so low as to exclude the thought of profitable operation in view of the high prices for raw material, continued to fall in course of the year. Even after taking into account the rebates on raw material for foreign delivery, we find that American works still had an advantage of about twenty marks a ton on pig iron and wire rods over the German producers. Coal prices, too, are considerably lower in America."

The demand, too, for protection from American competition continues to be heard. This time it is our machine tools and shoes. The Bund der Industriellen, at its December meeting, resolved to make an inquiry by circular-letter among its members as to presenting an urgent petition to the Federal Council to change the duties on American machine tools and shoes. The meeting voted that the change is necessary.

In connection with the Russian order of 80,000 tons at Baltimore, some interesting admissions were made in the German press. It was said, among other things, that the order was first offered to German works, but these could only take it upon condition that delivery begin January, 1900; then the order went to America because delivery was prompter. Then

it was said that the German works were not very anxious for Russian government orders, since it cut prices very closely. Sour grapes! The prices paid by the Prussian railway authorities evidently please the railmakers better. The three-year contract of the railway authorities with the mills at 109 marks a ton is about to expire, and negotiations were opened today for a renewal of the contract. The price to be agreed upon is reported at 115 marks, or over \$27 a ton.

WM. C. DREHER.

OUR FOREIGN COMMERCE.

Exports of 1898 the Largest in History, and Imports the Smallest Since 1885.

The story of the foreign commerce of 1898 is now complete. Its exports are the largest in our history, its imports the smallest since 1885, although the consuming population is now 33 per cent. greater than at that time; and, as if to emphasize the great work of this greatest year, the month of December made for itself the highest record of exports ever made by any month in our history. The total exports of December were \$137,847,448, and of the full calendar year \$1,254,925,169. Only two earlier calendar years crossed the billion-dollar line—that of 1897 having been \$1,099,709,045, and 1896, \$1,005,857,241. The largest record of any month prior to that just ended was that of November, 1898, which was \$129,780,014, while only sixteen months in our history ever crossed the one-hundred-million-dollar line in exports. Three months of the calendar year 1891, three months of the calendar year 1896 and four months in 1897 showed exports in excess of one hundred million dollars, while six of the twelve months of 1898 showed exports of more than one hundred million dollars each, and the full year averaged more than one hundred million dollars for its entire twelve months.

The imports of the year are as notable as the exports, but, for reverse reasons, being the smallest since 1885, although the consuming population is, as above indicated, 33 per cent. greater than at that time. They amount to only \$633,664,634, against \$742,623,893 in 1897. Thus the year shows an increase of more than one hundred and fifty million dollars in exports, and a decrease of more than one hundred million dollars in imports, giving by far the largest excess of exports ever known in our commerce.

The total excess of exports of merchandise is \$621,260,535, against \$357,090,914 in 1897, which was the highest record prior to 1898.

The largest exports in our history, coupled with the unusually small imports, were naturally accompanied by the largest net importations of gold. The total gold importations for the year were \$158,036,252, and the total gold exportations \$16,194,954, making the excess of imports of gold for the year \$141,841,298. The largest gold importation of any preceding year was that of 1896, when it amounted to but \$104,731,259, and when the excess of imports over exports was only \$46,474,369, while only two years in the decade—1896 and 1898—show any excess of imports of gold. The total imports of silver, most of which comes in with lead ore, were during the year \$29,020,724, a sum larger than that of any earlier years save 1896 and 1897, while the exports, stated in bullion value (except coins of the United States exported), were \$53,797,104, a sum larger than that of any preceding year except 1895, 1896 and 1897.

The following table shows the imports and exports of merchandise in the calendar years from 1888 to 1898, the excess

of imports or exports in each year being also indicated:

Year.	Imports.	Exports.	Excess of Exports.
1888...	\$725,411,371	\$691,761,050	\$33,650,321
1889...	770,521,965	827,106,347	56,584,382
1890...	823,397,728	857,502,648	34,104,920
1891...	828,320,043	970,500,640	142,180,597
1892...	840,930,955	938,420,660	97,489,705
1893...	776,248,924	876,108,751	99,859,827
1894...	676,310,310	825,102,248	148,791,938
1895...	801,673,307	824,860,130	23,186,823
1896...	681,579,556	1,005,857,241	324,277,685
1897...	742,623,893	1,099,714,807	357,090,914
1898...	633,664,634	1,254,925,169	621,260,535

*Excess of imports.

The following table shows the imports and exports of gold from 1888 to 1898, the excess of imports or exports in each calendar year being indicated:

Year.	Imports.	Exports.	Excess of Exports.
1888...	\$10,960,773	\$34,526,447	\$23,565,674
1889...	12,004,632	50,933,460	38,928,828
1890...	20,230,090	24,063,074	3,832,984
1891...	44,970,110	79,086,581	34,116,471
1892...	17,450,946	76,532,056	59,081,110
1893...	72,762,359	79,775,820	7,013,461
1894...	21,350,607	101,978,689	80,628,082
1895...	34,396,392	104,967,402	70,571,010
1896...	104,731,259	58,256,890	46,474,369
1897...	34,020,592	34,276,401	255,809
1898...	158,036,252	16,194,954	*141,841,298

*Excess of imports.

Norfolk's Export Trade.

The reports recently submitted at the annual meeting of the Norfolk Board of Trade and Business Men's Association contained some interesting statistics. According to the reports presented, the export business during 1898 amounted to \$13,670,000. The exports included grain, live stock, coal, coke, copper, cotton, pig iron, oil, lumber, tobacco, cottonseed oil, peanuts, phosphates and tallow. The following officers were elected for the ensuing year: R. Henry Jones, president; H. C. Hodges, first vice-president; W. H. Wales, second vice-president; Charles Pickett, secretary; W. Thompson Barron, treasurer.

Improving Southwest Pass.

The river and harbor committee of the House of Representatives has under consideration a plan for the improvement of Southwest Pass, at the mouth of the Mississippi river. A committee of New Orleans business men recently appeared before the committee and made an exhaustive statement, in which the statistics of New Orleans exports were given in detail. A plan has been proposed to build two jetties, both four miles in length and to be 2400 feet apart. It is calculated that this improvement can be made at an expense of \$13,000,000, and that it would give the desired depth of water in the Pass.

Another South American Line.

Mr. F. J. Kimball, chairman of the Norfolk & Western Railroad Co. directory, recently made a statement to a committee of the House of Representatives that a steamship service is to be established between Norfolk, Va., and South American ports, provided certain legislation now pending is favored by Congress. He announced that from \$5,000,000 to \$7,000,000 would be represented in the enterprise. The vessels are to carry freight and passengers, and it is reported that Mr. Kimball is to be president of the company if it is organized.

Texas Corn Exports.

Within two months over 1,500,000 bushels of corn have been shipped from Galveston, Texas, by steamer. Of this quantity, it is stated that all but about 2 per cent. was raised in Texas. This is a significant indication of what may be expected of this State as a producer of grain. It is probable that a few years will see the value of the grain exports from the State greatly increased, and that it may possibly be as much as the annual cotton shipments.

Richmond to Charleston.

The Virginia-Carolina Chemical Co., which has large interests in Richmond,

Va., and Charleston, S. C., has determined to operate a steamship line between Richmond, Charleston and Norfolk under the title of the Richmond, Norfolk & Charleston Steamboat Co. The vessels will be used, it is stated, entirely for freight business, and one trip a week will be made at first. Fertilizers will constitute a large portion of the freight.

Docks for the Baltimore & Ohio.

A dispatch from Sandusky, O., is to the effect that the Baltimore & Ohio Company has secured additional dock facilities at that place and will expend about \$50,000 for machinery for loading coal on vessels. Sandusky is one of the most important shipping points of the Baltimore & Ohio on the Great Lakes, and a quantity of West Virginia coal has been sent to the Northwestern market from this port.

Mobile's Cuban Trade.

At the annual meeting of the Mobile Chamber of Commerce, the report of the secretary for the last four months of 1898 showed that the exports during that period amounted in value to \$4,075,859, an increase over the same period in 1897 of \$1,193,134. The exports to Cuba alone since the close of the war against Spain amount almost to \$300,000 in value.

Jottings at the Ports.

The steamship Miami has begun service between Miami, Fla., and Nassau, in the Bahama Islands. On the first trip the vessel carried sixty passengers.

The steamship Olimbo recently cleared from New Orleans for Genoa, Italy, with 8800 bales of cotton, 1621 tons of pig iron and 869 tons of scrap iron and old rails.

The Brunswick & Hawkinsville Transportation Co. has been chartered in Georgia for the purpose of establishing a line of steamers on the Ocmulgee river between Macon and Brunswick.

From September 1 to December 25 last 2,000,000 bales of cotton were received in Houston, Texas. It is claimed that these receipts were the greatest recorded at any port in the world except Liverpool.

The truck shipments from the vicinity of Norfolk, Va., to the Northern market are extremely heavy, and the steamship lines plying between Norfolk, New York and other cities are carrying large cargoes of this freight.

The Chesapeake & Ohio Railroad Co. has determined to take advantage of the opportunities for importing fruit at Newport News, and has established a fast train service by which bananas and other fruit will be shipped to Cincinnati, St. Louis and other Western cities.

A schooner which will be largely utilized in the ice business between New England and the South, and which will probably be utilized for carrying Southern coal, has recently been launched at Camden, Me. She will have five masts, and will be the largest vessel of the kind afloat. Her cargo capacity will be 4300 tons.

The Commercial and Manufacturers' Association of Paducah, Ky., has issued a little handbook setting forth definite facts about Paducah, and suggesting inducements for the location there of a diversity of manufacturing interests. The pamphlet, of twenty-five pages, is issued upon the principle that in these days of keen competition and close margins, the wise manufacturer seeks as a location a point favorably situated as to raw materials and the markets. The information about Paducah thus set forth answers many questions with reference to both matters.

RAILROAD NEWS.

[A complete record of all new railroad building in the South will be found in the Construction Department.]

Railroad Earnings for 1898.

In its review of railroad earnings for 1898, the Financial Chronicle publishes statistics which indicate that the Southern transportation systems engaged in extensive traffic during the year under review. The group of Southern roads consisted of eleven lines east of the Mississippi river, while the southwestern group included nine of the lines west of the Mississippi. The earnings of the southern group for the entire year amounted to \$89,042,000, compared with \$81,364,000 for 1897. This is a gain of nearly \$8,000,000, or nearly 10 per cent. The earnings of the southwestern group amounted to \$82,761,000, an increase of \$5,000,000 over the preceding year. When it is stated that the trunk lines showed an increase of but \$5,000,000, and the earnings of the Middle and Middle Western lines amounted to but \$81,788,000, the business done over the Southern systems can be appreciated.

It is notable that in the increases for the year the South is well represented. The Illinois Central shows an increase of \$2,857,000, the Southern an increase of \$2,433,000; Missouri Pacific, \$1,969,000; Louisville & Nashville, \$1,890,000; the Cincinnati, New Orleans & Texas Pacific gained over \$1,000,000; the Kansas City, Pittsburg & Gulf, \$854,000; the Florida Central & Peninsular, \$772,000; the St. Louis Southwestern, \$685,000; the Chesapeake & Ohio nearly \$600,000; the St. Louis & San Francisco, \$527,000, and the Norfolk & Western, \$517,000. Only twenty-two railroads in the country showed an increase of \$500,000 and over, and, as will be seen, the Southern lines comprised half this number.

Western Travel Southward.

Regarding the tourist business from the West to the South, passenger agents of Southern railways are of the opinion that the prospects are excellent. General Passenger Agent C. Patmore, of the Louisville & Nashville, said:

"Travel to and through Florida from the West over our lines has been heavier than usual up to this time of the year, and I have every reason to believe that it will continue to be heavy. The Louisville & Nashville Railroad, as well as other roads from the West, anticipating a heavy season's travel, made arrangements accordingly. We have quickened our schedules, and have done everything possible to make traveling pleasant for the tourist. Upon my recommendation to the president of our road, we are now operating extra local trains this winter, being something that was never done before. With the quickening of the schedules on our through trains, it became necessary to leave out the small stations, so that extra local trains are now run to take care of the travel to such points. We are making a big bid for through business, as are other lines, so that every facility is being offered to people to come to Florida, and there is no reason why the travel should not continue to be good."

Kansas City, Pittsburg & Gulf.

According to the Boston News Bureau, arrangements have been made for the amalgamation of the Kansas City, Pittsburg & Gulf Railroad with its lines reaching Peoria, Chicago, Quincy and Omaha, Neb. A bond issue will be made to cover the entire system, it is reported, from Chicago to the Gulf of Mexico. It is also reported that 500 coke ovens are

now being built along the line of the Potomac coal fields. Parties from Virginia have opened mines which will insure a large coal traffic, while lumber mills are under construction, which will be in operation in March next. The Portland Cement Works, at White Cliffs, Ark., will also be in operation in about six weeks, as well as the factory being built at Port Arthur for making fish oil.

Southern Pacific and Galveston.

A dispatch from Galveston, Texas, is to the effect that arrangements have been made between Mr. C. P. Huntington, president of the Southern Pacific Railroad Co., and the city of Galveston, by which the former obtains the water-front property which he desires and about which negotiations have been in progress for sometime. As already stated in the Manufacturers' Record, the property includes ten blocks on the harbor, which will be used as terminals by the Southern Pacific for its export business. The price is \$200,000, and it is understood that Mr. Huntington agrees to expend \$150,000 in docks and other improvements within two years from securing control.

B. & O. Rolling Stock.

An agreement has been recorded at Baltimore by the Baltimore & Ohio Railroad Co., the Maryland Trust Co., of Baltimore, and the Mercantile Trust Co., of New York, for the lease of rolling stock recently referred to in the Manufacturers' Record. It includes 8500 freight cars and eighty locomotives. Through the Mercantile Trust Co. the Baltimore & Ohio secured 3500 freight cars and thirty locomotives, and through the Maryland Company 5000 freight cars and fifty locomotives. The value of the rolling stock is estimated at \$5,390,000.

Virginia, Fredericksburg & Western.

The Virginia, Fredericksburg & Western Railroad Co., at its annual meeting in Fredericksburg, Va., elected the following officers and directors: Hon. Chas. H. Gibson, of Easton, Md., president; John V. Giles, vice-president; S. H. Lexensky, secretary; directors, Charles H. Gibson, W. A. Little, Jr., Hon. W. A. Jones, John B. Giles, F. L. Rodgers, William C. Haight, Elmore Alvord, Lloyd T. Smith, E. B. Alvord, S. H. Lexensky. It is stated that arrangements are being made to float bonds in England to build this line.

Railroad Interests in Texas.

The annual report of the Texas Railroad Commission gives an idea of the extent of the railroad interests in this State. The total capital stock is nearly \$363,000,000, while the value of the property owned by the several companies is a little over \$141,000,000. The net earnings from operations for the year ending June 30, 1898, amounted to \$10,550,000. The quantity of freight carried during the same period was 18,590,000 tons, an increase of over 2,000,000 compared with the previous year.

Railroad Notes.

Edward H. Barnes has been appointed superintendent of the Raleigh & Western Railroad Co.

It is announced that the St. Louis Southwestern Railroad Co. has decided to locate its traffic department for the State of Arkansas at Pine Bluff.

W. R. Crabtree has been appointed industrial and immigration agent of the Chattanooga Southern Railway Co., with offices at Chattanooga, Tenn.

A recent order has been given by the Southern Pacific Railway Co. for a num-

ber of 10-wheel compound locomotives, which will be built by the Schenectady Locomotive Works.

A carload of syrup made from Georgia sugar-cane was recently shipped from Tifton, Ga., to Pittsburg, Pa. This is the first shipment of this kind ever made from the vicinity of Tifton.

The Norfolk & Carolina Railroad Co. recently secured two 10-wheel locomotives to be used for its freight business. They were manufactured by the Baldwin Locomotive Works, of Philadelphia.

The various branches of the Pennsylvania Railroad on the Eastern Shore of Chesapeake bay will be consolidated, with the approval of the stockholders of the several companies. They include the Queen Anne's & Kent, the Delaware & Chesapeake and the Cambridge & Seaford.

PETROLEUM IN THE SOUTH.

Increased Production in West Virginia and Texas.

The important features of the petroleum industry in 1897, according to the report of F. H. Oliphant, of the United States geological survey, just published, are the decrease of production in Ohio and Indiana and in most of the Appalachian field, and largely-increased production in West Virginia and in Texas. The total production in the United States was 60,568,081 barrels, a decrease of 392,280 barrels from the production of 1896.

Texas showed the largest percentage of gain in any of the States. The first development of oil in Texas was in Nacogdoches a few years after the war, but its development was slow until the discovery of oil at Corsicana a few years ago. In 1889 Texas produced forty-eight barrels, and there was a gradual increase until 1896, when the activities at Corsicana and vicinity swelled the production to 1450 barrels. In the following year the production was 65,978 barrels, an increase of 4450 per cent. In other words, for one barrel produced in 1896 there were forty-five and one-half barrels in 1897. At the close of 1897 there were forty-three wells, which number has increased since then. The developments have been confined largely to Navarro, Jefferson, Hardin and Bexar counties, Navarro being largely in the lead. In Jefferson county oil of a dark green color, and a good natural lubricator, has been barreled. Bexar and Hardin counties produce a dark, heavy oil in limited quantities, used for lubricating purposes in its natural state, and there are a number of other places in the State where a dark, heavy, tarry oil and bitumen are found.

The Appalachian field extends in a general southwesterly direction from Southwestern New York through Pennsylvania, West Virginia, Ohio, Kentucky and Tennessee, and terminating in Alabama. Both Kentucky and Tennessee have produced quite a small percentage, and the last none. In this field the production of West Virginia has held up the production of the field, Pennsylvania and Ohio showing a decrease. West Virginia had produced up to 1875 3,000,000 barrels; the next year it produced but 20,000 barrels; and while the production in Pennsylvania and New York has shown a tendency to decline since 1891, when it reached 33,009,236 barrels, West Virginia's production has since 1891 steadily increased until in 1897 the production was 13,090,045 barrels, amounting to more than 30 per cent., while the production in the older field, Pennsylvania and New York, had decreased to 19,262,066 barrels. The West Virginia increase has doubled nine times in ten years, notwithstanding the deep wells required in most of the fields of the State.

TEXTILES.

[A complete record of new textile enterprises in the South will be found in the Construction Department.]

Correspondence relating to textile matters, especially to the cotton-mill interests of the South, and items of news about new mills or enlargements, special contracts for goods, market conditions, etc., are invited by the Manufacturers' Record. We shall be glad to have such matter at all times, and also to have any general discussion relating to cotton matters.

A CENTER OF ACTIVITY.

Improvements in Charlotte's Neighborhood—The Mill Outlook.

[Special Cor. Manufacturers' Record.]
Charlotte, N. C., January 16.

The most important new enterprise in Charlotte of the month is the construction of a complete water-works system for Dilworth, the residential suburb owned by the Four Cs Company. The contracts have been let and the work is now in progress. The water supply is from a series of springs, whose waters have been consolidated in a large cistern. The water is to be pumped to a receiving reservoir of steel, on a steel frame tower 125 feet high. The tank will be thirty feet in diameter and thirty feet high. Mr. E. D. Latta, president of the Four Cs, today bought the pump for the water works from the D. A. Tompkins Co. The capacity will be a quarter of a million gallons a day. The water is of the purest quality and clear as a crystal. A complete sewerage system for Dilworth is also to be constructed. The pipe for the mains and branch lines is laid on the ground, but the contract has not yet been let. It will be given out the coming spring or summer. Your correspondent learns that the Four Cs is considering the project of extending the street-car line to Elizabeth College.

In conversation with a prominent mill man today, it was learned that several new cotton mills will be built in this section this year. "The outlook for the cotton-milling business in North Carolina," he said, "is most encouraging. The condition of business is to be gauged not so much by the number of new mills to be built as by the number of old mills that are being re-equipped with the newest and finest machinery. It is a fact that the mills of the South, as a general thing, have the finest machinery that is made. A better grade of goods will be made in the South this year than ever before. All the signs point to a prosperous year for the Southern cotton mills."

It is very likely that Representative Clarkson's bill for the establishment of a textile school in North Carolina will be passed by the present legislature. The directors of the Southern Cotton Spinners' Association, Messrs. A. P. Rhyne, R. R. Ray, P. M. Brown, A. C. Miller, J. T. Anthony, J. C. Smith, R. S. Reinhardt and D. A. Tompkins, and a committee of citizens will appear before the legislative committee this week in behalf of the bill. Charlotte counts on getting the school.

A party of surveyors have this week surveyed the shoals of the Yadkin, near Salisbury, for water-power for a big cotton mill. It was thought it was for the Cone Export Co., but Mr. Moses Cone writes your correspondent that his company is not connected with the projected enterprise. The Salisbury correspondent of the Observer says that the mill is to be built by the Messrs. Mebane, and that it will be the largest in the State.

The Cotton Movement.

In his report for January 13, Col. Henry G. Hester, secretary of the New Orleans Cotton Exchange, shows that the amount of cotton brought into sight during 135

days of the present season was 8,248,050 bales, an increase of 312,491 bales over the same period last season. Exports were 4,702,329 bales, an increase of 565,571. Takings by Northern spinners, 1,375,526 bales, a decrease of 45,882; by Southern spinners, 562,373, an increase of 7056 bales.

A Powerful Friend for Southern Cotton Interests.

[New Orleans States.]

It is widely announced that Mr. John E. Searles, who has long been an active man in the Sugar Trust and to whose ability that great trust owes so much of its success, has withdrawn from the concern to devote his energies to the American Cotton Co., which is introducing the cylindrical baling system, of which he is president. Mr. Searles is one of the great business men of the United States; indeed, we may say, of this era of combinations, and under his management we may safely assume that the cotton company will be developed to its full potentialities and prove a great blessing to the cotton growers of the South.

Of course, we expect to hear some featherheaded populist cry out against this gentleman because he has been prominently connected with one of the most powerful trusts in the Union. Some men, and there are a great many such, can never believe that they are wise and brave and independent unless they display the fool courage of striking at the hand that feeds them. We have never been the advocate of trusts, and we never shall be; but we must recognize that trusts are one of the methods of business that have grown out of our economic conditions; they are the evolution of a cheap age, just such as this is, and there is no more reason or sense in our indiscriminately denouncing them than there is in indiscriminately denouncing other corporations, railroads, insurance and telegraph companies. All these things are the evolutions of, and constitute the actual basis of modern civilization, wealth and prosperity.

It is true that the Sugar Trust, with which Mr. Searles has been so prominently connected, is one of the most powerful in the country, and has generally been one of the most vigorously denounced as oppressive and tyrannical. Be it so; it is then a sign of hope to the cotton growers of the South that the master-hand that did so much to organize and conduct that trust is now to transfer its skill, sagacity and intelligence to building up an institution that will be worth many millions annually to the South.

If all be true that has been said of the Sugar Trust, and all that this paper has proved to be the capabilities of the cylindrical bale be likewise true, then Mr. Searles transfers his large abilities from an injurious trust to the upbuilding of a great and most beneficent invention.

That Mr. Searles is an honest, upright man and a Christian gentleman all who know him will attest; hence, we most cordially welcome him into the leadership of the men who are interested in and working for the redemption of the Southern cotton growers from the poverty of four-cent cotton.

That the iron hand, shrewd and sagacious intellect, untiring devotion and enterprising temper of such a man as Mr. Searles are to be rallied to the aid of cotton is greater news than the assembling of a hundred cotton conventions.

Marshall Mills at Richmond to Resume

Mr. A. J. Bradley, who lately leased the Marshall Manufacturing Co.'s mill at Manchester, near Richmond, Va., is organizing a company to operate the plant. Charter has been applied for under the

name of the United Cotton Mills, with capital stock of \$10,000, and the incorporators being Messrs. A. J. Bradley, of Manchester, Va.; A. Moorehouse, of Darien, Conn.; C. M. Woodford, of New York, and A. W. Patterson, of Richmond. The Marshall Mills has an equipment of 7600 spindles and 286 looms in place. The company has also leased the Richmond Cotton Mills, equipped with 11,000 spindles, 315 looms, and will put that plant in operation. Mr. A. J. Bradley has been elected president.

7000-Spindle Mill for Rock Hill, S. C.

The directors of the Highland Park Manufacturing Co., of Charlotte, N. C., held their annual meeting last week and elected officers for the ensuing year as follows: W. E. Holt, president; J. S. Spencer, vice-president, and C. W. Johnson, secretary-treasurer. A semi-annual dividend was declared of 4 per cent. on both common and preferred stock. Capital is \$200,000.

This company has decided to enlarge the Standard Cotton Mill, at Rock Hill, S. C., a plant which it purchased recently. There will be erected a new building of capacity for 7000 spindles, so that the Rock Hill mill can supply the yarns for its 486 looms.

To Add 1300 Spindles.

The Caraleigh Mills Co., of Raleigh, N. C., has contracted for its proposed new raw-stock dyehouse and purchased the machinery for same. Another improvement just made was the addition of twenty looms. In the coming spring the company will buy and install 1300 spindles and fifty-six looms additional, together with carding and other machinery to balance same. Mr. F. O. Moring, secretary, is authority for the accompanying statements.

Adding 3800 Spindles.

A considerable quantity of new machinery will be added by the Louise Mills, of Charlotte, N. C. The additional equipment has been ordered from the Charlotte (N. C.) Machine Co., including carding, spinning, etc., that will make a 3800-spindle enlargement to the plant. This improvement will give this yarn mill a total of 11,800 spindles and 368 looms, all running day and night.

To Install 3500 Spindles.

The Eastern Building and Loan Association, of Syracuse, N. Y., will put from 3000 to 3500 additional spindles in the Cumberland Mills, at Cumberland, N. C., which plant it purchased several weeks ago. The mill's installed equipment at present is 3200 spindles and ninety looms. Mr. C. H. Reynolds has charge of this enterprise, and expects to commence the production of yarns in a few weeks.

Improvements to Cost \$40,000.

The stockholders of the Modena Cotton Mills, of Gastonia, N. C., held a meeting last week to consider improvements to their mill. It was decided to expend about \$40,000 for a new addition, and the capital will be increased at once for this purpose. This company at present has 4000 spindles and 208 looms running.

Textile Notes.

The Lancaster (S. C.) Cotton Mills has declared a semi-annual dividend of 3 per cent.

Mr. E. B. Hornady, of Ellaville, Ga., is endeavoring to organize a company to build cotton mill.

Messrs. Wiggins & Ide, of Quincy, Fla., will probably place contract for the manufacture of several hundred thousand yards of cotton strips, one and one-half

or two inches wide, of heavy drill or eight-ounce duck, in bolts of sixty yards.

It is reported that Dr. W. P. Glover, of Macon, Ga., will build a cotton factory at Juliet, near Macon.

Northern capitalists have been investigating at Lindale, Ga., with a view of establishing a knitting mill.

The Odell Manufacturing Co., of Concord, N. C., has declared a dividend of 4 per cent. on its capital stock of \$400,000.

Mr. W. S. Payne, of Atlanta, Ga., will endeavor to organize a company for the erection of a cotton mill. A capital stock of not less than \$250,000 will be proposed.

Mr. John Hill, of Atlanta, Ga., Southern representative of the Lowell (Mass.) Machine Works, is said to be interested in a project for a new cotton factory at Atlanta.

The report stating that the Monroe (Ga.) Cotton Mills is to build a new weave shed (noted last week) was an error, the company having at present no such intention.

Messrs. J. A. Long, A. R. Fonshoe and others, of Roxboro, N. C.; J. S. Carr, B. L. Duke and others, of Durham, N. C., are interested in a proposed company to build cotton mills in Roxboro.

The Young Men's League of Jackson, Tenn., is endeavoring to locate a cotton mill in its city. A number of business men are interested in the project, and New England capitalists are also interested.

The annual meeting of the stockholders of the Cabarrus Cotton Mills, of Concord, N. C., was held last week. The old officers were re-elected, and a semi-annual dividend of 5 per cent. was declared on the capital stock of \$100,000.

The stockholders of the Riverside Cotton Mills, of Danville, Va., held their annual meeting last week. The annual report of the directors was presented and received with satisfaction. The old officers will be re-elected, excepting B. F. Jefferson, who resigns as president.

The annual meeting of the Charlottesville (Va.) Woollen Mill Co.'s stockholders was held on January 11. The reports of the officers showed the company's business for the year to have been profitable and satisfactory. The same officers were re-elected, including H. C. Marchant, president.

The Eno Cotton Mills, of Hillsboro, N. C., has placed contracts for the 5000 additional spindles, noted last week as to be installed. All preparatory machinery will come with the new spindles, and the company will, by these improvements, double its equipment, so that night operations can cease.

The stockholders of the Linden Manufacturing Co., of Davidson, N. C., held their annual meeting last week and heard the reports of their executive officers. A prosperous business year was shown, and a dividend, not by any means consuming the year's profits, was declared. The dividend was 5 per cent. semi-annual. The old board of directors and officers was re-elected.

The new Norfolk (Va.) Silk Co., reported at length in our issue last week, has elected officers for the ensuing year as follows: President, Otto Andreae, Jr., of Paterson, N. J. (where he is president of the Empire Silk Works); vice-president, J. P. Andre Mottu, of Norfolk, Va.; treasurer, H. A. Van Liew, of New York city (where he is president of the Liberty Silk Co., of 548 West 57th street); secretary-assistant treasurer, J. P. Williams, of Norfolk. The executive manager of this enterprise will make immediate arrangements for the erection of the contemplated \$400,000 silk factory.

COTTONSEED OIL.

This department is open for the full and free discussion of trade topics and practical questions, and contributions are invited from men who are identified with this industry. Items of news are always acceptable.

The Market for Cottonseed Products.

New York, N. Y., January 17.

The cotton-oil market is strong. A quiet jobbing trade in all goods is proceeding, but there is reason to feel that when buyers realize the prospect for lower prices is of a very remote character, a much larger volume of business will be transacted. Crude is in good demand on the recent advance, the small stocks rendering this grade correspondingly valuable. Western refiners and packers have been heavy purchasers of crude in Texas at 17 to 17½ cents for prime. With regard to Texas, considerable uneasiness is felt by producers of that State, in view of the proposed French tariff, which, it is feared, is designed to shut out American cotton oil. Texas would suffer more than any other State in such an event coming to pass, seeing that so much of her products is dependent on the French markets. It is possible, however, that the prohibitory duty which France proposes to levy as a means of shutting out the American cottonseed product may cut two ways, and be the direct means of increasing in this country the manufacture of a variety of "olive oil," to the detriment of France, which largely manufactures and exports it. Beef fats are strong and advancing. Tallow, for which there is a good demand for export as well as home use, is strong at 4 cents. Lard is dull, but the exporters are buying May lard freely at 5.72½ cents., Chicago. January lard is offered at 5.50 cents. With regard to the general condition of the cotton-oil market, it may be said buyers appear to be more or less anxious over supplies of all desirable grades. Advices from the South confirm the report that the mills are disposing of more of their production direct than during any previous season, and not a few of the mills are well sold ahead and at remunerative prices. This has the effect of keeping the mills busy, while in the meantime securing more seed, owing to their willingness to pay for a higher price. For off crude in barrels 17 to 18 cents has been paid for about 1200 barrels during the week, and 19 cents for prime. Soap men have bought off crude quite freely at 13 to 15 cents direct from mills. The Union Oil Co. has advanced its prices on 10-barrel lots and less to 32 cents, and over ten barrels to 30 cents, on salad, olive flavored and winter white, and to 31 cents and 29 cents, respectively; on winter yellow. The following are closing prices: Crude, 17 to 19 cents; crude, loose f. o. b. mills, 15½ to 17½ cents; summer yellow, prime, 23 to 23½ cents; summer, choice, 23½ to 24 cents; summer, off grades, 21½ to 22 cents; yellow, butter grades, 25 to 30 cents; white, 29 to 30 cents; winter yellow, 28 to 29 cents, and salad oil, 30 to 31 cents. Liverpool (England) refined is steady at 15/5.

Cake and Meal.—Strictly prime meal is quoted here at \$22.10 per short ton and \$19 for ordinary. Advices from the United Kingdom are to the effect that prices are well maintained, an upward tendency being in evidence.

Cottonseed-Oil Notes.

The market for cottonseed products in Texas is very steady, especially for cottonseed oil of the better grades. There is a good demand for cake and meal for export. The Houston Post quotes the market as follows: Prime crude oil, 16 to 16½ cents; prime refined summer yellow, 18 to 18½ cents; cottonseed meal, \$13.50

to \$14.50, and cake, \$13 to \$13.50; linters—A, 2½ to 2½ cents. All quotations are f. o. b. at mills at interior points in the State.

Land was purchased on the 13th inst. at Farmersville, Texas, from E. D. Coleman by Hansel & Scarborough, of Bonham, Texas, upon which they will erect a cottonseed-oil mill, with a capacity of ninety tons daily.

The Richmond Cotton Oil Co., of Chattanooga, Tenn., is now doing a very extensive business, the cottonseed-oil industry being now at its height. The receipts of cottonseed by the company are very liberal and the mill is running at its full capacity. A force of 220 men are employed at the plant.

A meeting of business men and citizens of Mount Pleasant, Texas, was held on the 13th inst. for the purpose of organizing a stock company for the erection of a cottonseed-oil mill at that place. The indications for the early erection of a mill are very flattering, and subscriptions to the stock are practically assured.

It is stated that Mr. R. K. Erwin, of Waxahachie, Texas, representing capitalists of Corsicana and Paris, in that State, has made a proposition to the citizens of Fort Worth to build and operate a cottonseed-oil mill in that city. Mr. Erwin proposes to build a 60-ton mill to cost \$40,000, he and his associates to take half of the capital stock, the other half to be made up by local subscription. The sum of \$10,000 was subscribed on the 8th inst., and the remainder will be raised.

At New Orleans values for cottonseed products rule firm, especially for oil. Receipts have been more liberal during the past week, and the foreign export trade is reported more active. Receivers' prices were quoted as follows: Cottonseed, \$5 per ton of 2000 pounds on the river bank from New Orleans to Memphis; cottonseed meal jobbing at depot, \$17 per short ton and \$18.75 to \$19 per long ton for export, f. o. b.; cottonseed oil, 16 to 17 cents per gallon for strictly prime crude, in bulk 14 to 15 cents, and 20 to 22 cents for refined oil at wholesale or for shipment; oil-cake, \$18.75 to \$19 per ton f. o. b.; linters—A, 2½ cents per pound; B, 2¼ cents; C, 2 cents; hulls delivered at 7½ to 10 cents per 100 pounds, according to the location of the mills.

The Cosmopolitan Magazine announces that it has secured the sole right of publication of the great novel upon which Count Tolstoi has been laboring in order that he may devote the proceeds to the transportation to Canada of 3000 Russian Quakers. It is generally believed by his friends that this work will probably mark the conclusion of Count Tolstoi's literary career. Not merely on this account, but because of the subject treated, it will attract the widest attention the world over. It is a profound study of the life of man and woman, and treats of the three phases of love—that of the youth, that of the young man, and that of the man in mature age.

The Coal River Railroad Co., at its recent meeting at Charleston, W. Va., elected the following officers: Thomas L. Broun, president; Roman Pickens, treasurer; Fontaine Broun, secretary, and W. C. Reynolds, engineer.

The Chattanooga Chamber of Commerce elected as officers, president, W. B. Swaney; vice-president, A. S. Glover; secretary, B. L. Goulding, and treasurer, E. F. Sevier.

Mr. K. W. P. Wilson has been elected president of the Mobile Commercial Club in place of Mr. Erwin Craighead, resigned.

LUMBER.

[A complete record of new mills and building operations in the South will be found in the Construction Department.]

LUMBER MARKET REVIEWS.

Baltimore.

Office Manufacturers' Record,
Baltimore, Md., January 19.

There is a better tone to the local lumber market, and in many channels there is considerable activity. The yellow-pine market is reported in a much better condition, prices for air-dried lumber being firm and higher. Box lumber is in good demand and at the moment is \$2 per thousand higher than at this date last year. There is a good demand from planing mills and yard men; in fact, buyers are beginning to realize that stocks everywhere are light and value appreciating, hence the number of inquiries and present demand. In kiln-dried North Carolina pine stocks are light and holders are very firm and expect much higher prices in the near future. The situation in North Carolina pine is at the moment very promising, the members of the association of mills in the North Carolina pine belt being in perfect accord with each other, and matters in the association are in better shape than at any time in the last decade. During the past thirty days negotiations have been on foot between Boston capitalists and members of the North Carolina Pine Association to secure control of the pine industry. The matter has as yet taken no definite shape, and the result will not be known for some days to come. It is said that there will be some difficulty in getting the mills to agree to propositions in their present shape. The movement in white pine in the local market has been more decided during the week, and values are very steady, with a better demand. In hardwoods there is a fair trade in progress, and, with light stocks, prices are generally firm.

Norfolk.

[From our own Correspondent.]
Norfolk, Va., January 16.

The general trade of this port continues to make a most respectable record, and in all commercial and industrial pursuits the volume of business is larger than for any corresponding period in the history of the port. The lumber industry, which is of primary importance, continues to develop considerable activity, and as the business of the old year is now practically settled, lumber men are devising the plan and scope of business for the current year. At the moment the market is active and firm. Stocks are light in all sections and orders coming in freely, so that the output is immediately absorbed, while prices continue firm and hardening. All indications point to an early opening of the spring trade, and from the number of inquiries both from domestic and foreign sources, a large trade is likely to be developed. Air-dried North Carolina pine is selling freely, both in box and flooring grades. Kiln-dried lumber of desirable grades is yet somewhat scarce, and in some instances it is difficult to fill orders on short notice. Planing mills are generally busy and dressed lumber is in good demand, with prices firm and higher. There is generally a fair trade with all woodworking concerns, and crate factories and others are all busy increasing the season's output. The local demand from contractors and builders is active, and from these sources large quantities of material will be absorbed. There is at present a light offering of desirable vessels for freighting lumber, and rates are firm, being quoted at \$2.25 to \$2.35 to New York and Sound ports, and \$3.25 to \$3.50 to Boston and eastward. The

schooner Howard A. Hunt was chartered on Saturday to load lumber at this port for New York on private terms.

Savannah.

[From our own Correspondent.]
Savannah, Ga., January 16.

A fairly active trade demand has characterized the business of the past week in all wood products. The outlook for business in all departments of the local lumber industry is said to be very encouraging. At the nearby ports of Brunswick and Darien the movement is indicative of an increased volume of business in lumber and timber. At all milling sections there is considerable business reported, mills being generally well supplied with orders. The demand from Northern sources is steady and prices are generally firm, especially for the better grades of lumber. On Saturday the market closed quiet and steady as follows: Minimum yard sizes, \$9.20; car sills, \$10; difficult sizes, \$11 to \$12; shipstock, \$15 to \$16.50; sawn crossties, \$8.25; hewn crossties, 29 cents per tie. Among the clearances last week were the following: Schooner Geo. Taulane for Newport News with 360,856 feet of lumber; German steamer Regina for Bremen with 31,000 feet of lumber among her cargo; British steamer Corncliffe for Barcelona with 60,189 feet of pitch-pine lumber and other cargo. New York steamers took out 426,000 feet of lumber; Boston steamers, 93,565 feet, and Baltimore steamers, 138,688 feet. Lumber freights are steady and unchanged, with a moderate offering of handy-sized vessels. The rates from this and nearby ports in Georgia are quoted at \$4 to \$4.75 for a range including Baltimore and Portland, Me. Among the charters reported in New York last week were the following: Schooner Rob Roy, 746 tons, from Savannah or Brunswick to Philadelphia with lumber on private terms; a schooner from Savannah, Brunswick or Fernandina to New York, three trips, with lumber at \$5.25; schooner A. B. Sherman, 510 tons, from Brunswick to Baltimore with ties at 14 cents, and schooner Joel F. Sheppard from Brunswick to Camden, Me., with lumber on private terms.

Mobile.

[From our own Correspondent.]
Mobile, Ala., January 16.

The timber and lumber market at this port is in a more healthy condition and the volume of business better than for the month of December. Stocks of timber are reported light, very little coming in from the upper rivers. In reviewing the trade in wood products of this port, Mr. W. K. Syson says: "The outlook for Mobile is very good, indeed, and I think that the wood goods of this port will advance materially during the next sixty days. The tramp steamers will begin to come in next month, and then the shippers will have to hustle to find material with which to load them, thus running up the present market quotation." Prices for timber continue very steady. Sawn timber is quoted at 10½ to 10¾ cents per cubic foot, 40-foot basis, and contracts are made at 10 to 10¾ cents. There is a good demand for cypress logs at 7 to 10 cents per cubic foot. Pine saw logs are in demand at \$4 to \$7 per 1000 feet. Hewn timber is quoted firm at 12 to 12½ cents per cubic foot, basis of 100 cubic feet, average B1 good. Hewn poplar is in limited demand at 10 to 11 cents per cubic foot. The lumber trade is looking up and prices for desirable stock are firm, with a good general demand. In milling sections there is considerable activity and stocks are not excessive, mills generally shipping their output as fast as cut. The stockholders of the Gulf Coast Lumber Co. will hold a meeting at Pensacola on Thursday next. It has been decided by

this company to hold a meeting immediately after adjournment of the stockholders' meeting to consider the advisability of forming an organization of lumber men for concert of action in fixing and maintaining the price of lumber. The trade with Cuba and other islands in lumber and other wood products is increasing, and in the next sixty days it is expected considerable trade will be developed from those sections. During the past week the following shipments were reported: Bark Carston Boe for River Tyne with 47,790 cubic feet of sawn timber and 18,570 feet of lumber; bark Mercuri for Antwerp with 2103 cubic feet of sawn timber and 460,625 feet of lumber; steamer Maylands for Liverpool with 150,000 feet; bark Lique for East London, South Africa, with 683,731 feet; schooner Jessie Lena for Havana, Cuba, with 297,200 feet; bark Columbus for Rosario, Argentine Republic, with 498,825 feet, and bark Michele B. for the same port with 448,815 feet. The charters reported in New York last week were the schooner S. C. Hall from Mobile or Pascagoula to New York with lumber at \$6; schooner Carrie E. Look, 427 tons, from Mobile to Ponce, Porto Rico, with lumber at \$5.75 and port charges, and schooner Charles H. Wals-ton from Moss Point and Pascagoula to Havana with lumber on private terms.

Lumber Notes.

The Dickson-Mason Lumber Co. will remove its locust-pin factory from Asheville, N. C., to Bristol. The pins are used on telegraph and telephone poles.

The Koenig Lumber Co., of St. Louis, Mo., was chartered last week with a capital of \$20,000. The incorporators are F. A. Koenig, F. A. Koenig, Jr., and G. V. Koenig.

The shipments of lumber and other wood products last week from Jacksonville, Fla., amounted to 2,100,000 feet by sail vessels and 750,000 feet by Clyde steamers.

The large and valuable saw-mill plant at Clinton, Tenn., has been purchased from Gillis Bros., the former owners, by the Knoxville Furniture Co., and will be immediately placed in operation.

The exports of wood products from the port of Mobile for the month of December, 1898, were as follows: Lumber, 7,468,000 feet; sawn timber, 2,632,000 superficial feet; hewn timber, 56,504 cubic feet, the whole valued at \$108,163.

M. A. Easterling and Felix May last week purchased the interest of A. E. Morton and Samuel Morton in the Morton & Helm Lumber Co., of Brookhaven, Miss., for the sum of \$71,200. The mill will be run in future by the purchasers.

The lumber firm of Willingham & Co., of Chattanooga, Tenn., has purchased a piece of property in that city, for which they paid \$3000. The firm proposes to erect in the near future a planing mill and other works on the property purchased.

Messrs. Fonde Bros., of Mobile, Ala., are equipping a plant with the latest and most improved machinery for the manufacture of frames, moldings, office fixtures and interior finish of all kinds. The plant will be completed and running about the 1st of February.

The Cedar Creek Mill Co., of Mobile, Ala., closed a deal last week with the Peters Trust Co. for a large body of timber lands on Murder creek, mostly in Conecuh county. The tract numbers 50,000 acres, and the consideration was something over \$300,000.

Mr. B. A. Lewis, of Fayetteville, Tenn., has sold out his interest in the large saw mill and log boom down on the Elk river to George Goodrich. The firm now operates under the name of Goodrich Hiller.

The Atlantic Lumber Co., of Boston, buys and ships most of the output of the mills.

It is expected that the present season will be one of the best the lumbermen of Maine have experienced for several years. The cut on the waters of the Kennebec will probably exceed that of 1897 by at least 24,000,000 feet, and the total cut of that section, it is estimated, will be fully 125,000,000 feet of lumber.

Receipts of building material at New Orleans for the week ending January 13 were as follows: Lumber, 1,556,000 feet; shingles, 156,000; oak staves, 117,594, and cypress staves, 45,000. The total receipts of lumber at New Orleans for the season amounts to 38,299,700 feet, against 33,178,000 feet for the corresponding period in 1897-98.

The annual election of the Lumbermen's Exchange of St. Louis was held last week, when the following officers were elected: President, R. M. Fry; vice-president, John A. Rehebs; directors, James D. Harnett, W. Drake, Jr., John R. Boyden, George E. W. Luehrman, Charles F. Thomas, George P. Massengale and P. B. Little.

Among the clearances from the port of Pensacola last week were the following: Schooner M. A. Cornell for Kingston, Jamaica, with 57,566 feet of lumber, and schooner Melrose, for the same port, with 127,824 feet of lumber and 90,000 shingles, and bark Arvenire C. for Genoa with 492,000 feet of lumber and 41,000 superficial feet of sawn timber.

The J. F. Keith Co., ship-owners and lumber exporters, at Beaumont, Texas, has entered the lumber-manufacturing business, having purchased the output of the Hooks Lumber Co. at Sharon, Texas. The Keith Company has a large trade with Mexico and South America, and the Hooks mill will be kept busy sawing to fill orders for those markets.

It is stated that Major Frank Y. Anderson, land commissioner of the Alabama Great Southern Railroad, has sold to the Bradshaw Lumber Co. an immense tract of timber lands in the State of Louisiana, on the Queen & Crescent Railroad, for \$40,000. The purchasers are extensive lumber manufacturers and will at once develop the purchase.

The plant of the Courtland Lumber Co., situated on the Nottoway river, thirty miles from Suffolk, Va., was destroyed by fire on the 10th inst. Nearly all the manufactured lumber was saved. The loss is estimated at \$7000, and is practically covered by insurance. The plant was owned by Freeman & Floyd, of Norfolk, Va., and W. T. Sears, of Courtland.

It is said that Mr. George W. Truitt, owner of extensive mill plants at Capron, Va., and a large lumber dealer, has an option on 158,000 acres of heavily timbered land in Georgia. It is estimated there are on the tract between 700,000,000 feet and 800,000,000 feet of lumber. Mr. Truitt left for Atlanta, Ga., on Sunday last to negotiate the deal for the property.

Mr. Theodore F. Booth, treasurer and manager of the T. F. Booth Lumber Co., of New York, died at the home of his son-in-law, W. S. S. River, of that city. As a member of the New York Maritime Exchange Mr. Booth took a prominent part in organizing the Southern pine trade in 1884, establishing trade rules, classifying lumber, etc., and at the time of his death he was a member of the committee regulating that trade.

A meeting of Texas and Louisiana lumber manufacturers was held at Houston, Texas, on the 10th inst. The purpose of the meeting was to consider new grading rules for yellow-pine lumber, which were submitted by a committee

from the Southern Lumber Manufacturers' Association. The rules were carefully considered by those present at the meeting, and certain changes suggested, which will be urged upon the Southern Association at its meeting in Memphis this week.

The Cumberland River Estates Co., in Stewart county, Tennessee, is about to sell the Tennessee & Cumberland River Railroad the branch which runs from Tennessee Ridge, on the Louisville & Nashville Railroad, to Bear Spring Furnace, and 4000 acres of land. It is said that this will be done to establish a spoke factory near the Dover furnace plant. The Cumberland River Estates Co. proposes to develop that section of the county to as great an extent as possible. The company is owner of about 50,000 acres of valuable timber land in that section.

Representatives of the American and Canadian lumber interests met in conference in Washington, D. C., on the 12th inst. Among the American lumber men were Theophilus Tunis and ex-Governor Jackson, of Maryland, and Mr. Dill, president of the Baltimore Lumber Exchange. The Canadians wanted the \$2 tax per thousand feet now imposed by the Dingley tariff removed and lumber admitted free, the Americans refusing to make any concessions. The Canadians are disappointed at the outcome of the conference, though they assert they did not come to Washington for the purpose of having the tariff removed.

On the first Tuesday in March next the property of the Suwanee Canal Co. will be sold at auction at the courthouse in Fulton county, Georgia. The Savannah News, in commenting on the sale, says: "The reclaiming of the Okefinokee swamp was one of the greatest enterprises ever projected in Georgia, and in magnitude is second only to the reclamation of the swamps of South Florida by the Diסטon Company. Many thousands of acres of land have been redeemed, miles of canals have been constructed, railroads built, saw mills erected and other enterprises put in successful operation. In the property to be sold are over a quarter million acres of land, situated in Pierce, Camden, Clinch, Ware and Charlton counties. A circular-saw mill, with a capacity of 30,000 feet per day, and a Perkins shingle mill, with a capacity of 30,000 shingles a day, two steamboats, a great dredge and other valuable machinery are among the assets to be disposed of. A deposit of \$20,000 must accompany the bid, and this in itself gives some idea of the value of the properties and the amount they are expected to bring."

According to a dispatch from Jacksonville, Fla., reports relative to the Florida orange crop are to the effect that about 1,000,000 crates will be shipped North during the present year.

The business men of Petersburg, Va., have determined to have an exposition in that city, and a plan is favored to form a company with \$10,000 capital stock to promote it.

Officers of the Columbus Board of Trade have been elected as follows: J. A. Kirven, president; W. C. Bradley, vice-president; H. C. Flian, secretary and treasurer.

In 1897 West Virginia increased its production of natural gas more than 40 per cent., according to the report of F. H. Oliphant, of the United States geological survey.

The valuation of real estate and building in Virginia in 1898 increased \$2,725,366.

PHOSPHATES.

Phosphate Markets.

Office Manufacturers' Record,
Baltimore, Md., January 19.

There is a better tone to the local phosphate market and some business has been developed during the past week. A fair demand exists from fertilizer manufacturers, both in this city and from out-of-town buyers. Brokers report sales of Florida and South Carolina rock at better figures. There is also a good inquiry for Tennessee phosphate rock. From points of production reports come to hand of increased development and considerable activity in shipments from the ports. In South Carolina the work of the year 1898 in phosphate mining showed an increase in rock mined of 23,002 tons; increase of stock on hand December 31, 1898, 5356 tons, and a decrease in shipments for the year of 1138.96 tons. The market at the moment is very steady, with prices unchanged. Crude phosphate rock at the mines is quoted at \$3; hot-air dried, \$3.25 f. o. b. vessel in Ashley river, and \$3.45 f. o. b. Charleston city. The movement in Florida during the current month has been satisfactory, and in land rock and pebble districts the output shows better volume. Tennessee phosphate rock is reported firm, with a good domestic and foreign demand. Around Mount Pleasant miners are working their deposits at full capacity, and the output so far this month has been larger than usual. Several large tracts of phosphate territory have recently been sold near Columbia, which will be developed, and which indicate rich deposits. The local charters reported during the week were the schooner Horace Macomber, to land phosphate rock at Port Tampa for Philadelphia on private terms, and a schooner to load at the same port for Cartaret, N. J., at \$2 a ton. The New York charters were: Schooner Isaiah Hart, 799 tons, from Port Tampa to Philadelphia, to land phosphate rock at \$2; bark C. P. Dixon, 692 tons, from Port Tampa to Baltimore with phosphate rock on private terms; a schooner from New York to Wilmington, N. C., with fertilizer at \$1.25; British steamer Viola, 1205 tons, from Coosaw to Dublin with phosphate rock at 18; schooner Rachael W. Stevens from Port Tampa to Cartaret with phosphate rock at \$2, and schooner S. H. Davidson from Ashley River to Baltimore with phosphate rock on private terms.

Fertilizer Ingredients.

The market for ammoniates is very quiet and there is little or no demand from the usual sources. The advance in freight rates has restricted trade and buyers are not disposed at the moment to pay the advance in prices. There is a light demand from Southern points, but the Eastern trade is exceedingly light. The Western market is quiet, with values firm. Sulphate of ammonia is steady. Nitrate of soda is firm and unchanged.

The following table represents the prices current at this date:

Sulphate of ammonia (gas)	\$2 70 @	—
Nitrate of soda	1 65 @	1 70
Blood	1 80 @	1 82½
Hoof meal	1 70 @	—
Azotine (beef)	1 85 @	—
Azotine (pork)	1 85 @	—
Azotine (concentrated)	1 62½ @	1 65
Tankage (6 and 20)	1 65 @	and 10
Tankage (7 and 30)	17 00 @	17 50
Fish (dry)	20 00 @	—
Fish (acid)	12 00 @	—

Phosphate and Fertilizer Notes.

The bark Alkaline was cleared last week from Pensacola by the Goulding Fertilizer Co. with 12,750 bags of superphosphate for Fort-de-France.

Hon. J. B. Van Buren, of Griswoldville, Ga., has leased to a New York syndicate with a capital of \$250,000 his kaolin lands near Griswoldville, twelve

miles from Macon. The syndicate proposes to commence operations at once, manufacturing crockery and earthenware from these deposits of kaolin, which is said to be of the finest quality.

The schooner George R. Congdon cleared from Charleston, S. C., last week for Newton Creek, N. J., with 600 tons of phosphate rock, and the schooner S. B. Marts for Baltimore with 787 tons. The total shipments of phosphate rock from Charleston to domestic ports for the season of 1898-99 amount to 44,603 tons, against 31,352 tons for 1897-98.

Messrs. Hubbard & Co., fertilizer manufacturers, of Baltimore, are erecting a pier and a three-story building on the Canton water front. The pier will be 120 feet long, and the building will be fitted with the latest machinery. The increasing trade of the firm renders it necessary to abandon their present quarters, which are much too small for their operations.

The annual meeting of the Seminole Hard Rock Phosphate & Land Co. was held last week at Jacksonville, Fla. The following officers were elected for the ensuing year: J. L. David, president; A. O. McDowell, secretary; T. A. Phillips, treasurer. Favorable reports were made for the present and future outlook of the company, also advance in price and increased demand for the product.

Col. J. L. Bell, well known in railroad circles in the South, in company with Mr. S. C. Gallaher, a prominent chemist, have recently been investigating the possibilities of utilizing the output of the kaolin beds of Florida in different forms. It is stated that these parties and those whom they represent are considering the location of a large manufactory for the purpose of utilizing these clays, which are said to be of superior quality. The port of Jacksonville is said to be favored for the location of the plant proposed.

It is stated that three of the largest fertilizer concerns in Baltimore are about to pass into the hands of Northern capitalists. The rumor on the street during the week was to the effect that negotiations were on foot for the purchase of the plants of the Detrick Chemical & Fertilizer Co., the Maryland Fertilizing & Manufacturing Co. and the interests of George W. Grafflin & Son. Parties interested state that such a deal is on foot; that plans are, however, not matured, and that propositions are under consideration.

Mr. A. W. Jones, phosphate inspector for the State of South Carolina, in his annual report of the phosphate industry in that State, gives the following operations for the year: The total amount of rock mined during the year ending December 31, 1898, was 99,315 tons, against 76,313 tons for 1897. Amount of rock on hand December 31, 1898, was 33,015 tons, against 26,659 tons for 1897. Shipments for the year were reported at 94,098.24 tons, of which 64,174.50 tons went to foreign ports, 11,761 tons to coastwise ports and 18,162.74 tons to Charleston and Beaufort. The total shipments for the year 1897 amounted to 95,237 tons.

The Commercial Club of Augusta, Ga., has elected T. W. Alexander, president; F. B. Pope, vice-president, and J. B. Walker, secretary and treasurer.

In the Joplin (Mo.) district the output last week was 10,419,460 pounds of zinc and 770,190 pounds of lead, in all valued at \$165,601.

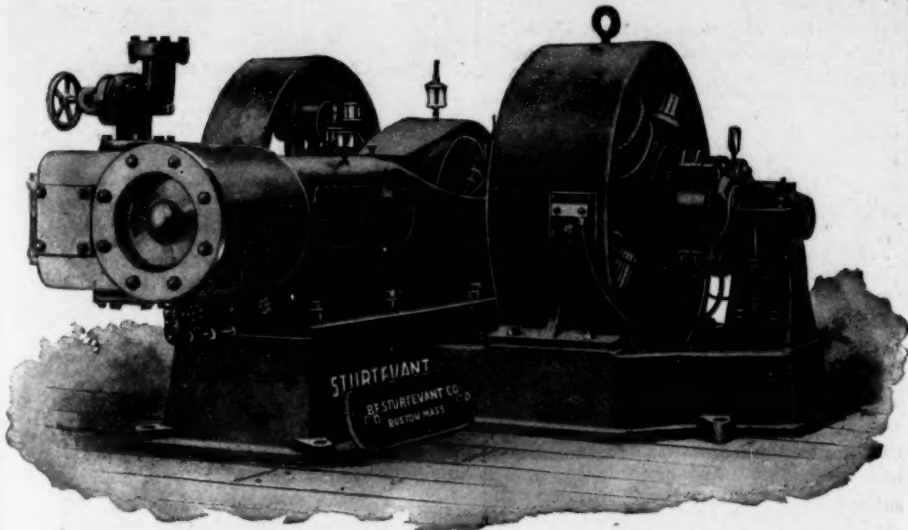
Knoxville marble companies are shipping goods to Canada.

It would pay every town and every property-owner and agent in the South to advertise in the *Southern Farm Magazine*. It is published by the Manufacturers' Record Publishing Co., Baltimore.

MECHANICAL.

Generating Set with Horizontal Engine

The center-crank type of horizontal engine has become much more popular since the advent of the type of generating set of which it so readily forms a component part. The form of set illustrated herewith is one of several types designed and manufactured by the B. F. Sturtevant Co., of Boston.



STURTEVANT GENERATING SET, WITH HORIZONTAL ENGINE.

The engine was primarily designed for dynamo driving, and in every particular attention was given to those features necessary to successful operation under such conditions.

The engine and generator rest upon a common cast-iron bed. The engine itself is of such design as to partially enclose the running parts. The oil guard and the removable side plates serve still further to render it of the enclosed type, and to this extent prevent the entrance of dust and the throwing of oil.

steel, and the pole shoes of cast iron.

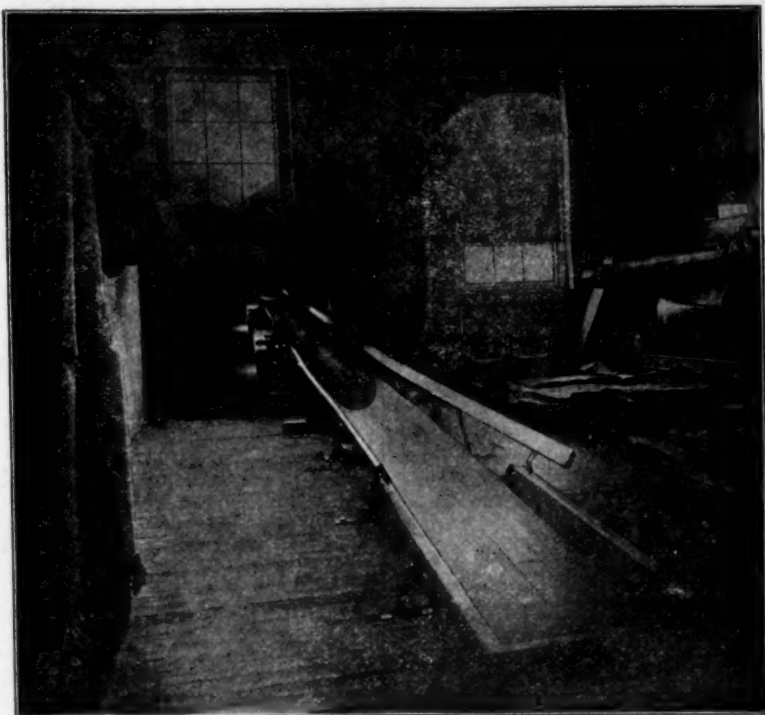
The armature is mounted upon an extension of the engine shaft, which is supported at its outer end by an independent pedestal, with ring oiler.

The proportioning of the magnetic field and armature is such as to insure absolutely sparkless operation under all changes of load from no load to 25 per cent. overload. The temperature rise after a full-load run of ten hours is limited to 90° F. The armature is of the

barrel-wound type. A cast-iron flange, bolted to the armature spider at each end of the core, forms a support as well as a cylindrical receptacle for the projecting ends of the coils. The flange extension also protects the windings from any oil that may be thrown from the windings.

The surface of the interior of this flange is perfectly smooth, offering no opportunity for the collection of oil or dust.

Ventilation is effected by the use of specially-constructed vanes, forming ducts between the laminae of the core.



JEFFREY BELT CONVEYOR.

The valve, which is of the balanced-piston type, is provided with snap rings, and operates in a removable bushing, thereby making it a simple matter to always keep it tight.

The regulator, which is capable of the closest possible regulation, operates through a range of zero to three-quarters cut-off. The engine cylinder is thoroughly lagged. All moving parts are adjustable, and continuous sight-feeding oil arrangements are provided throughout.

This generator is of the multipolar type, the field ring and corer being of cast

These convert the armature into a blower and create a strong draft through the windings.

The series winding of the field coils consists of a flat copper ribbon, the shunt winding being of wire. Both windings are placed on the pole entirely independent of each other, and either may be readily removed. Both shunt and series windings have free circulation of air upon all sides.

The type of set here illustrated is built in sizes from 6x8 engine to 16x14 engine, with output ratings of from fifteen to

seventy-five kilowatt, and weighs from 6000 to 23,000 pounds.

The engine frames are arranged so as to be fitted with cylinders of a maximum of eighty pounds or a maximum of 120 pounds pressure.

Jeffrey Belt Conveyor.

The accompanying illustration is a view of the Jeffrey belt conveyor installed in the plant of the Higgins Carpet Works, New York city, for handling rolls of carpet from the machine to the storeroom.

The special features of this conveyor are the Jeffrey belt-carriers, being of such construction as give the belt a perfectly natural curve, thus forming a trough in which almost any kind of material can be carried successfully. Curving the belt to form a trough not only prevents the material from rolling off, but also greatly increases the capacity.

This conveyor is adapted to a great variety of purposes, and plays an important part in the conveying of ore, coal, sand, grain, etc. For handling abrasive material a special belt is furnished, known as the Century brand, made in all plies and widths. This belt has its carrying side re-enforced with an extra thickness of pure rubber, thus greatly increasing its durability. This style of conveyor runs with the least possible amount of friction, requiring a minimum of power for the work performed. It will carry material successfully a distance of 1000 feet or even more. The carriers are provided with an automatic oiling device, so that the conveyor requires very little attention.

The Jeffrey Manufacturing Co., of Columbus, Ohio, manufactures and installs this equipment, and will be pleased to correspond with interested parties in regard to this special conveyor or elevating and conveying machinery in general.

Handy Hose Attachments.

Among the many handy hose brass goods manufactured by the H. B. Sherman Manufacturing Co., of Battle Creek, Mich., are the attachments illustrated herewith.

The Sherman hose clamp is the latest



FIG. 1.

improved style. It is made in two styles, one with rounded ears and especially neat construction for one-half to three-quarter inch lawn hose, and these small sizes are put on with screw-driver alone. The application is said to be rapid and sure, rendering the hose perfectly tight at the coupling. This device is claimed to abolish the complaints that dealers frequently receive regarding hose when the defect is in a wire band that stretches and cast clamp that is too stiff to draw down on the hose.

The other style of this device is made for hose in sizes of one inch and larger. This style is made from extra heavy sheet brass, with the clamp extra strong in the ears, and provision is made for the use

of vise jaws in securing the clamp on the hose.

Hose for heavy duties require fasteners that are so strong that they can be



FIG. 2.

put on tightly enough not to be capable of being blown off.

The Sherman Manufacturing Co. makes



FIG. 3.

twenty-eight different sizes of clamps, and will furnish pertinent literature or information to correspondents.

TRADE NOTES.

Mr. J. S. Keefe.—J. S. Keefe, for ten years traffic manager of the Illinois Steel Co., has resigned to accept a similar position with the new American Steel & Wire Co.

Valuable Property for Sale.—On February 8 a valuable property in Morehead City, N. C., is to be offered for sale at public outcry. The property includes 300-room hotel, cottages, club, bathing-houses, fine site, etc. E. A. Humphrey, of Goldsboro, N. C., can give information. (Or see advertisement.)

Brushy Mountain Coal Mines.—The position of sales agent of the Brushy Mountain coal mines, of Petros, Tenn., has been abolished. Mr. A. H. Wood, manager of the company, will assume all duties formerly under the control of the sales agent. Mr. H. L. Corry assumes the duties of cashier.

Water-Power for Sale.—Messrs. Ladshaw & Ladshaw, of Bolling Springs, N. C., offer for sale a good water-power site located in their State. The property includes the Durham shoals, on Main Broad river, in Cleve-

land county, and shows a fall of twelve and one-half feet in 500 yards and four and one-half feet in sixty yards. It is surrounded by healthful country, farming lands, fields adapted to cotton culture, etc.

Finished Steel.—One of the most completely-equipped plants in its class in the country is that of the Finished Steel Co., at Youngstown, Ohio. This company produces a line of patent cold finished steel hexagons, steel flats, steel squares, etc., of diverse weights and dimensions for different purposes, and its finished stock constantly on hand in racks ready for shipment numbers 1000 tons. The Finished Steel Co.'s manufactory is prepared to quote prices and terms on application. Branch offices and agencies are established in the principal cities of the continent, including Boston, New York, Philadelphia, Pittsburgh, Chicago, Cincinnati, Duluth, Richmond, Montreal and Hamilton.

CONSTRUCTION DEPARTMENT.

THE MANUFACTURERS' RECORD seeks to verify every item reported in its Construction Department by a full investigation and complete correspondence with everyone interested. But it is often impossible to do this before the item must be printed, or else lose its value as news. In such cases the statements are always made as "rumored" or "reported," and not as positive items of news. If our readers will note these points they will see the necessity of the discrimination, and they will avoid accepting as a certainty matters that we explicitly state are "reports" or "rumors" only. We are always glad to have our attention called to any errors that may occur.

*Means machinery, proposals or supplies are wanted, particulars of which will be found under head of "Machinery Wanted." In correspondence relating to matters reported in this paper, it will be of advantage to all concerned if it is stated that the information was gained from the Manufacturers' Record.

It often occurs that the organization of a new company in any town is not known by the postmaster, and hence letters addressed to the company are returned marked "not known." The Manufacturers' Record reports the first organization of all companies, and our readers, in seeking to get into communication with them, should be very careful in deciding how to address them, and even then they must expect the return of some letters, because of the lack of knowledge on the part of postmasters of all new companies. Criticisms and complaints are invited, as they will the better enable us to guard against errors.

ALABAMA.

Bessemer—Blast Furnaces, etc.—The American Pipe & Foundry Co. will, it is stated, construct two blast furnaces near its pipe plant and lease or lands on the property of Col. Mark L. Potter and operate them. John W. Harrison is president of company.

Birmingham—Woodworking-machinery Works.—C. B. White, representing an Illinois firm, has purchased site near Birmingham for the erection of a \$50,000 machine works. Wood-cutting machinery, gas engines and gasoline engines will be the product.

Birmingham—Brewery.—Contract has been let for extensive improvements to be made by the Alabama Brewing Co., which will include the enlargement of its ice plant to a daily capacity of seventy-two tons, and numerous other improvements are to be made in the brewery proper; improvements to cost about \$40,000.

Birmingham—Foundry and Machine Shops. The Tennessee Coal, Iron & Railroad Co. telegraphs that it is building foundry and machine shop in connection with the Alabama Steel & Shipbuilding Co.'s plant at Ensley; probably most of the Tennessee Company's work will be concentrated at that point; G. B. McCormack, general manager.

Cullman—Water Works, Electric-light Plant, etc.—The city council will petition the legislature for authority to issue bonds for the construction of water works, erection of an electric-light plant and other improvements. Address "The Mayor."

Mobile—Woodworking Factory.—Foude Bros. are fitting up and equipping with the latest and most approved machinery a plant for the manufacture of frames, moldings, all kinds of lathe work, interior finishings, etc.; machinery to be operated by a 10-horse-power electric motor.

Tusculum—Stock Raising.—Claud Seals and others have incorporated the Island Stock Co., with a capital stock of \$10,000, for the purchase of Seven-Mile Island, near Tusculum, for stock-raising purposes.

Tuskegee—Electric-light Plant and Water Works.—Bonds have been issued for the construction of the proposed water works and erection of an electric-light plant. Bids will shortly be asked for. Address "The Mayor."

struction of the proposed water works and erection of an electric-light plant. Bids will shortly be asked for. Address "The Mayor."

ARKANSAS.

Junction City—Water Works.—The city contemplates putting in a water-works plant. Address W. W. Davis, mayor.

Pine Bluff—Cotton Compress.—William W. Bierce, of New Orleans, La., will erect at once a \$100,000 cotton compress in Pine Bluff.

Pine Bluff—Cotton Compress.—The Standard Compress & Warehouse Co. will repair its press, recently damaged, at a cost of \$10,000, and will also put in a new press at a cost of \$30,000.

Searcy—Flour Mill, Ice Factory, etc.—The Brown Milling Co., recently reported as incorporated, will establish a 125-barrel flour mill, machinery for which has been purchased. The company expects later on to add an ice plant and water works. Address W. H. Brown.*

Van Buren—Coal Mines.—A. H. Harrison is developing coal mines on a large scale.

FLORIDA.

Astor—Palmetto-fiber Factory.—The Palmetto Company, of Philadelphia, Pa., has been incorporated, with a capital stock of \$37,000,000, for the purpose of owning and controlling the patent rights, etc., of Arthur Kennedy and others for the utilization of the palmetto plant in the manufacture of various products. A factory with a capacity of 2000 gallons per day is already erected, and it is stated that several other factories in that State will be acquired.

Deland—Water-works Improvement.—The city contemplates drilling a new eight-inch well, extending its mains and making other improvements to its water-works plant. Address "The Mayor."

Jacksonville—Kaolin Mines.—Col. J. L. Bell is investigating with a view of establishing a plant in Jacksonville for the purpose of utilizing the kaolin deposits for manufacturing purposes. C. W. White, of Citra, Fla., is also interested in the enterprise, and may be addressed for particulars.

Jacksonville—Wharves.—The Clyde Steamship Co. has under consideration the extension of its wharves, contract for which has, it is stated, been let.

Jacksonville—Sugar Refinery.—There is talk of the establishment of a sugar refinery; possibly Capt. C. E. Rose, of Klammer, Fla., can give information.

Monticello—Cigar Factory.—John Stoker will establish a cigar factory.

Ocala—Barrel Factory.—The Montgomery (Ala.) Cooperage Co. has purchased the plant of the Ocala Barrel Manufacturing Co. and will enlarge and operate same.

Ybor City—Drug Company.—Chartered: The Cosmopolitan Drug Co., to conduct a general drug business, by Enrique Pendas, Jose Pita, B. M. Balbontin, Martin Caraballo and others; capital stock \$5000.

GEORGIA.

Atlanta—Cotton Mill.—It is reported that a new cotton mill will be erected near Atlanta. John Hill, of Atlanta, is said to be interested in the enterprise, and may be addressed.

Atlanta—Straw-hat Factory.—The Neal Loan & Banking Co. will erect a three-story factory building to be occupied by the National Straw Hat Co. when completed. E. L. Pittman will superintend the work of construction.

Atlanta—Furniture, etc., Factory.—The New England Manufacturing & Household Art Decorating Co. is in correspondence with Mayor Woodward relative to the establishment of factory in Atlanta for the manufacture of art furniture, office fittings, hardwood floors, etc. Address for particulars W. S. Gilbert, president, Evansville, Indiana.

Atlanta—Creamery and Refrigerating Plant.—The Central Creamery Co. has been incorporated, with a capital stock of \$30,000, for the establishment of a creamery and refrigerating plant; contract has not as yet been let for erection of building or for machinery. J. F. Betts is president, and F. C. Betts, secretary-treasury. Address the secretary.*

Dalton—Woodworking Factory, Blacksmith Shop, etc.—The Sanders Manufacturing Co. will erect a machinery depot, woodworking and blacksmith shop 250x30 feet, and will

put in new machinery, including engine, etc. Address J. M. Sanders, president.

Dawson—Cottonseed-oil Mill.—The Dawson Oil Co. will rebuild its mill, recently burned. Address A. J. Baldwin.

Ellaville—Cotton Mill.—Efforts are being made for the establishment of a cotton mill. Address E. B. Hornaday, who is interested in the project.

Gainesville—Woodworking Factory.—It is said to be probable that J. M. B. Winburn will establish a factory for making his patent book-and-arm rest for bookkeepers.

Griswoldville—Kaolin Deposits and Manufacturing.—J. R. Van Buren has sold kaolin lands near Griswoldville to New York parties, who will develop same and manufacture earthenware. Dr. Cyrus Edson, of New York city, is said to be interested.

Juliette—Cotton Mill.—Dr. W. P. Glover is arranging for the establishment of a cotton-yarn mill.

Lindale—Knitting Mill.—Northern capitalists are investigating with a view of locating a large knitting mill in Lindale. Address Maj. T. H. Booz, who can probably give information.

Macon—Cracker Factory and Bakery.—The National Biscuit Co., of Cincinnati, Ohio, has leased (through its agent, J. T. McMannis) the three-story building on Fourth street next to the military division hospital, and will establish at once a cracker factory and bakery to employ 100 operatives. Address J. T. McMannis, manager of the new plant.

Marvin—Foundry and Machine Shops.—J. W. Hitch has erected a \$10,000 foundry and machine shops.

Monroe—Cotton Mill.—The Monroe Cotton Mills writes that the report stating it intends to erect new weave shed (mentioned last week) is an error.

Savannah—Telephone System.—The city council will hold a special meeting to consider a proposition from W. A. Blabbe, of Jacksonville, Fla., to organize the Georgia Telephone Co. for the establishment of a telephone system in Savannah.

Thomasville—Sugar Refinery.—Dr. McTyre will erect a sugar refinery near Thomasville.

KENTUCKY.

Campbellsville—Flour Mill.—T. F. Nell will build a flour mill of thirty barrels capacity daily.

Henderson—Box and Basket Factory.—The Anderson Box & Basket Co., reported last week as incorporated, has purchased the established factory of Anderson & Beverly.

Louisville—Stave Factory.—The Palmer Manufacturing Co., of Elamville, Ala., contemplates building a large stave factory in Louisville.

Madisonville—Electric-haulage Plant.—The Reinecke Coal Co. intends to equip its coal mines with an entirely new boiler plant, four in number, not less than seventy-two inches in diameter, with necessary fittings, etc.; will also install dynamo and other electrical apparatus for haulage plant and for mining.*

Owensboro—Flour-mill Machinery Plant.—The Business Men's Association has about completed arrangements with J. M. Case and A. A. McConnell, of Alverton, Ohio, for the establishment in Owensboro of a plant for the manufacture of milling machinery. Address secretary Business Men's Association for particulars.

Paducah—Coal Elevator.—The Paducah Coal & Mining Co. is having plans made for rebuilding its coal elevator, recently burned. Contract will be let in a few days.

LOUISIANA.

Abbeville—Irrigating Canal.—Richard H. Mills will construct a canal for irrigating rice.

Abbeville—Saw Mill and Woodworking Factory.—Charles Steen is arranging for the establishment of a saw mill and woodworking factory.*

Abbeville—Telephone Exchange.—E. W. Berline and others are organizing a company for the establishment of a telephone exchange.*

Abbeville—Sugar Refinery.—The Vermilion Sugar Co. will at an early date erect a central sugar refinery.

Albemarle—Sugar Mill.—The Oakley Planting Co., Limited, will put in a new six-roller mill. Address Hon. Andrew Hero, Jr., president.

Gregg—Sugar Factory.—Desire Delcambre and others have formed a stock company, with a capital stock of \$50,000, for the erection of a sugar factory at Meadows Station.

Lake Charles—Sugar Refinery.—J. C. Morris, president of the Canal Bank, of New Orleans, has purchased for \$25,500 the Calcasieu Sugar Refinery and will put same in operation.

Lake Providence—Electric-light and Water Works.—The city has voted affirmatively in the proposed issuance of \$17,500 (not \$7500, as stated last week) in bonds to buy an electric-lighting and water-supply system and for other purposes. The bonds will shortly be issued. Address "The Mayor."

New Orleans—Publishing, etc.—The N. D. McDonald Co., Limited, has been incorporated, with Nicholas D. McDonald, president; Hugh Flynn, vice-president, and Isalah D. Stafford, secretary and treasurer, for the purpose of conducting a general book and publishing business; capital stock \$25,000.

New Orleans—Wharves, Warehouses, Elevator, etc.—A dispatch from New Orleans states that the Illinois Central Railroad Co. will erect at Avondale, near New Orleans, elevator, warehouses, wharves, etc., at a cost of \$5,000,000, and that contracts for the work have nearly all been let. Address Stuyvesant Fish, president, New York, N. Y.

Ramsey—Sugar Mill.—Martin Bagley will establish a sugar mill of 1000 tons daily crushing capacity.*

Rayne—Sugar Mill and Syrup Canning Factory.—A. L. Chappuis, W. C. Cheris, E. O. Bruner, R. C. Webb and A. S. Chappuis are interested in the erection of the sugar mill and syrup canning factory, recently noted. Address A. S. Chappuis.

Shreveport—Saw Mill, Furniture Factory, etc.—The Austro-American Stave Co. will erect a saw mill with a daily capacity of 35,000 feet of lumber and to employ from eighty to 100 operatives. The company will erect later in the year, in addition to the saw mill, either a box or furniture factory; estimated cost of the entire improvements will be \$30,000. Address B. Kobler, manager.

Thibodeaux—Electric-light Plant.—Bids are wanted until February 9 on machinery, apparatus, etc., for the electric-light plant recently noted. Plans and specifications on file with R. G. Naguin, city marshal, and G. U. Borde, Liverpool & London & Globe Building, New Orleans, consulting engineer.*

MARYLAND.

Baltimore—Shoe Company.—Chartered: The Lawrence & Gould Shoe Co., with a capital stock of \$50,000, by John A. Lawrence, Frank Gould, Robert E. L. Berger, Charles E. Seibert and Samuel E. Gill, for the purpose of manufacturing shoes and boots.

Baltimore—Tailoring Company.—The Goldman Tailoring Co. has been incorporated by Lewis Goldman, Charles A. Sullivan, Charles G. Joyner and others, with a capital stock of \$2500.

Baltimore—Medicine Factory.—The Emerson Pharmacal Co. has been incorporated, with a capital stock of \$500,000, by Isaac E. Emerson, John F. Waggaman, Joseph F. Hindes, Parker Cook and Henry W. P. Ackerman, for the purpose of manufacturing medicinal specialties.

Baltimore—Furniture, etc., Factory.—The Arundel Caster Manufacturing Co. has been incorporated, with a capital stock of \$1000, for the purpose of manufacturing and dealing in furniture, casters and light hardware; incorporators, Henry P. Wartman, George R. Jacobs, William Hallahan, A. J. Robinson and John F. Schulz.

Brookline Station—Canning Factory.—A \$6000 stock company has been organized, with J. W. Butler, president, and Frank Parson, secretary, for the erection of a canning factory with a capacity of 20,000 cans.

Cambridge—Dwellings.—John Truitt will erect two new dwellings.

Cambridge—Box and Lumber Mill.—The Box & Lumber Co. has about completed plans for the erection of its buildings; the capital stock, \$10,000, has about all been subscribed, and the company expects to have the plant in operation in the spring.

Glen Morris—Supply Company.—Peter G. Zouck, Dr. T. R. Price, D. W. Bollinger, Oliver P. Merriam and Arthur N. Rich have incorporated the Glen Morris-Glyndon Supply Co., with a capital stock of \$30,000, to conduct a general merchandise business.

Laurel—Water Works.—Efforts are being

made for the organization of a stock company to construct a system of water works at a probable cost of \$30,000. Address for further information Mayor Edward Phelps.

Washington, D. C.—Medicine Factory.—The Washington Herb Co. has been incorporated, with an authorized capital of \$25,000, to manufacture medicines; incorporators, J. A. Blunden, M. M. Flannery, J. G. Birchfield, Prince George county, Maryland; W. W. Wright, Jr., and C. Carson, Washington, D. C.

Wheel—Carriage-stock Factory and Saw Mill.—The J. C. Hollingsworth Wheel Co., lately reported as to rebuild its carriage-stock factory and saw mill, has also decided to put in chop, feed and corn mill.*

MISSOURI.

Carthage—Electric-light Plant.—Bids are wanted until January 17 for furnishing the machinery and for construction of the proposed electric-light plant, which will cost about \$25,000. Address Owen Ford, engineer, No. 710 Security Building, St. Louis, Mo., or C. O. Harrington, mayor.*

Central City—Lead and Zinc Mines.—Colonel Payne and associates have leased property and are developing lead and zinc mines.

Dekalb—Hardware and Furniture Company.—The Dekalb Hardware & Furniture Co. has been incorporated, with a capital stock of \$4500, by C. K. Leslie, J. W. Sul-lards and J. T. Spencer.

Fayette—Telephone Company.—Chartered: The Fayette Telephone Co., by C. E. Betts, H. K. Givens, C. E. Givens and others, with a capital stock of \$10,000.

Kansas City—Milk Company.—S. Shumway, C. H. Gilbert and Lillie M. Gilbert have incorporated with a capital stock of \$3000 the Cameron Milk Co.

Kansas City—Paint Company.—The Diamond Paint Co. has been incorporated, with a capital stock of \$10,000, by J. M. Davison, C. A. Campbell, H. Raw and others, to conduct a general paint and oil business.

Kansas City—Commission Company.—Chartered: The Stock Yards Horse & Mule Co., to conduct a general commission business, by J. D. Guyton, St. Louis, Mo.; J. W. Montagu and J. S. Taugh; capital stock, \$60,000.

Kansas City—Commission Company.—Chartered: The International Live Stock Commission Co., by C. M. Bruce, H. B. Sanborn, C. A. Shaffer and others, with a capital stock of \$100,000.

Marshall—Floral Company.—The Marshall Floral Co. has been incorporated, with a capital stock of \$15,000, by C. A. Mauch, R. E. Holloway, W. T. Sharp, T. W. Lacey and others, for the purpose of cultivating flowers.

Neosho—Lead and Zinc Mines.—Webb City parties are developing lead and zinc mines on the property of John B. Davis.

Sedalia—Electric-light Plant.—The Sedalia Water & Light Co. has obtained franchise from the city council for the erection of a \$50,000 5000-lumen incandescent electric-light plant. Address L. P. Andrews, manager.

Sedalia—Electric-light Plant.—The city council has granted franchise to W. H. Powell, Jr., (which was recently applied for) for the erection of an electric-light plant, which will be put in in connection with the Sedalia Ice & Cold Storage Co. at a cost of not less than \$50,000.

Sedalia—Electric-light Plant.—E. G. Cassidy has been granted franchise for an electric-light plant and intends utilizing the surplus power from his ice plant in generating electricity. He will make extensive additions to the machinery now in position, which will include the most approved incandescent and arc lights.

St. Joseph—Laundry Company.—The My Laundry Co. has been incorporated by H. M. Getchell, James M. Tinsley and A. H. Wehrman, with a capital stock of \$10,000.

St. Joseph—Shoe Company.—The F. Wentz Shoe Co. has been incorporated, with a capital stock of \$20,000, by F. Wentz, P. F. Wentz and F. J. Wentz.

St. Louis—Telephone and Electric Company.—The Central Telephone & Electric Co. has been incorporated, with a capital stock of \$10,000, by James Cumming, Paul Reiss and C. A. Power.

St. Louis—Brewing Company.—John M. Frederick, Joseph A. Duffy and James Kavanaugh have incorporated the Burton Ale & Porter Brewing Co., with a capital stock of \$25,000.

St. Louis—Electric Company.—The Van Nort Bros. Electric Co. has been incorporated, with a capital stock of \$5000, by Sterling P. Van Nort, Samuel A. Van Nort and James B. Woods.

St. Louis—Light, Heat and Power Plant.—The St. Louis Heat, Light & Power Co. has

applied for franchise to erect a light, heat and power plant.

St. Louis—Dry Goods Company.—The Ryan-Clarkson Dry Goods Co. has been incorporated, with a capital stock of \$10,000, by Richard J. Ryan, William F. Clarkson and William Murphy.

St. Louis—Brick Company.—J. H. Looney, John H. Doane and George Hey have incorporated the Gate City Brick Co., with a capital stock of \$5000.

St. Louis—Grocery Company.—Chartered: The T. Scully Grocery Co., with a capital stock of \$5000, by Thomas Scully, Mary Flowery and A. Scully.

St. Louis—Stamping-tool and Manufacturing Company.—The Ranz-Lambrecht Stamping Tools & Manufacturing Co. has been incorporated by Jacob Ranz, A. Lambrecht and L. Lambrecht.

St. Louis—Drug Company.—Brenno Bri-bach, Jennie L. Bribach and Ernst A. Winkelman have incorporated, with a capital stock of \$5000, the Bribach Drug Co.

St. Louis—Shoe Company.—Mary M. Harris, A. E. Harris and George R. Harris have incorporated, with a capital stock of \$5000, the Cushion Shoe Co.

St. Louis—Furnishing-goods Company.—Chartered: The McDermott & Holke Furnishing Goods Co., with a capital stock of \$3000, by James F. McDermott, Frederick Holke and Frederick Sieberman.

St. Louis—Ice Factory, etc.—The Mound City Ice & Cold Storage Co., recently noted as incorporated, intends to build a plant of 100 tons capacity daily, with cold-storage capacity of a three-story building 75x150 feet and a four-story building 75x150 feet; buildings other than these will contain the boilers, machinery and ice plant. Louis Hofman, manager, can be addressed.

NORTH CAROLINA.

Charlotte—Electric-light Plant.—The Piedmont Clothing Co. has let contract for the establishment of an electric-light plant.

Charlotte—Wagon Factory.—Hook & Sawyer will prepare the plans for wagon-factory building to be erected by Vinton Liddell, as noted lately.

Charlotte—Grocery Company.—The Charlotte Grocery Co. has been incorporated, with a capital stock of \$20,000, by J. W. Heard, C. Gresham and R. E. Young, to conduct a general wholesale grocery business.

Charlotte—Cotton Mill.—The Louise Mills will put in additional carding, spinning and other machinery, which will add a 3800-spindle equipment to the mill; present equipment 8000 spindles and 386 looms.

Chockoyotte—Electric-light Plant.—Paul Garrett contemplates putting in an electric-light plant, power to be furnished by the Weldon Cotton Manufacturing Co.

Concord—Cotton Mill.—The Odell Manufacturing Co. will, it is reported, add considerable new machinery to its mill this year.

Cumberland—Cotton Mills.—The Eastern Building and Loan Association, of Syracuse, N. Y., the recent purchaser of the Cumberland Mills, will equip the factory with 3000 to 3500 spindles to make coarse yarns. Nos. 8s to 14s.

Dillworth—Water Works and Sewerage.—The Charlotte Consolidated Construction Co. has awarded contracts for the construction of proposed water works and the work is now in progress; water will be pumped to a receiving tower of steel 125 feet high, tank being thirty feet in diameter and thirty feet high, and the pump having a capacity of 1,000,000 gallons daily. A complete sewerage system is also to be constructed in the future; E. D. Latta, president.

Elkin—Woolen Mill.—The Elkin Manufacturing Co.'s improvement, referred to last week, consists of erecting a second story in its mill, thereby doubling size; new machinery will be installed about next June.*

Gastonia—Cotton Mill.—The Modena Cotton Mills will increase its capital stock from \$80,000 to \$120,000, and expend the additional capital so acquired in the erection of a 5000-spindle mill. All the machinery needed has been selected.

Goldsboro—Drug Company.—The Goldsboro Drug Co. has been incorporated by J. L. Borden, Geo. C. Royall, Chas. B. Miller and William H. Cobb, Jr., with a capital stock of \$15,000.

Greensboro—Clothing Company.—Chartered: Matthews, Chisholm, Stroud & Rankin has been incorporated, with a capital stock of \$12,000, by William H. Matthews, T. L. Chisholm, June B. Stroud and Will R. Rankin, for the purpose of conducting a general clothing business.

Hendersonville—Gold Mines.—C. F. Toms, W. A. Smith and M. C. Toms have purchased and will develop the Boyleston gold mines in Henderson county, as recently stated. Address C. F. Toms.

Hillsboro—Cotton Mill.—The Eno Cotton Mills has ordered the 5000 additional spindles reported last week as to be installed.*

Mint Hill—Cotton Ginnery.—James A. Crowell will erect a cotton ginnery.*

Murphy—Corundum and Mica Mines and Plant.—Leverett S. Ropes will arrange for the immediate development of corundum and mica deposits. A complete plant for mining will be erected, together with 75-ton crusher and other necessary equipment for concentrating and washing the product. Power will be supplied by impulse water wheels under 300 and 500-foot heads through hydraulic pipe. Designs for the mill are now ready.

Oxford—Vehicle Factory.—Taylor & Can-nady will increase the capacity of their plant by putting in additional machinery.

Raleigh—Cotton Mill.—The Caraleigh Mills Co. will make other improvements besides erecting the new dyehouse reported last week; twenty new looms have just been installed, and in the spring fifty-six more looms and 1300 spindles will be installed, together with carding and other machinery necessary to balance same.

Reidsville—Water Works.—A bill has been introduced in the legislature to authorize and empower the town of Reidsville to issue and sell bonds to provide water works.

Roxboro—Cotton Mill.—The erection of the proposed cotton mill is an assured fact. Those interested in the enterprise are J. A. Long, of Roxboro; Col. J. S. Carr, B. L. Duke and George W. Watts, of Durham. Address for further information J. A. Long.

Sallsbury—Broom Factory.—T. B. Marsh will establish a broom factory.*

Sallsbury—Cotton Mill.—A correspondent of the Manufacturers' Record writes that engineers have surveyed during the past week the shoals of the Yadkin river, near Sallsbury, for water-power to be developed to operate a large cotton mill; it is further stated that the cotton mill will be erected by the Messrs. Mebane, North Carolina cotton manufacturers, and that the plant will be the largest in the State. Probably B. Frank Mebane, president of the Mineola Manufacturing Co., of Gibsonville, N. C., can give information.

Weldon—Machine Shop.—H. A. Mims contemplates establishing a machine shop.*

Wilmington—Grocery and Export Company.—The J. C. Stevenson Co. has been incorporated, with a capital stock of \$50,000, to conduct a general grocery and export business; incorporators, J. C. Stevenson, Elizabeth Stevenson and J. M. Stevenson.

SOUTH CAROLINA.

Anderson—Mercantile Company.—The Horn-Bass Co. has been incorporated by J. W. Morrow, of Albemarle, N. C.; W. W. Horn, of Anderson, and J. H. Bass, to conduct a general mercantile business; capital stock \$5000. Address W. W. Horn.

Barnwell—Cotton Gin.—Col. Mike Brown will rebuild his cotton gin, recently burned.

Clover—Cotton Mill.—The Clover Cotton Manufacturing Co. will increase its capital stock.

Darlington—Flour Mill.—A roller flour mill will be established. Names of interested parties will be announced later.

Dillon—Telephone Company.—Chartered: The People's Telephone Co., with E. L. Moore, president and manager, and John Wilcox, secretary.

Greenville—Laundry.—J. C. Hill (colored) is establishing a \$1000 steam laundry.

Meggett—Transportation Company.—The Southern Transportation Co. has been incorporated, with Augustus F. Young, president; Norman H. Blitch, vice-president, and Edward Carter, secretary and treasurer, to conduct a general manufacturing and transportation business.

Rock Hill—Cotton Mill.—The Highland Park Manufacturing Co., of Charlotte, N. C., will enlarge the Standard Cotton Mill at Rock Hill, which it purchased lately; a building will be erected with a capacity of 7000 spindles, so that the mill's 496 looms can be supplied with yarns.

Spartanburg—Cannery.—C. H. Shutte will erect (as recently reported) a cannery next summer; capacity 3000 to 4000 cans per day; will employ fifteen to twenty hands.*

Walhalla—Planing Mill and Dry-kiln.—J. L. Hamby has leased the planing mill and dry-kiln of C. W. Pitchford and will operate same, manufacturing all kinds of resawed lumber, molding, brackets, etc.

TENNESSEE.

Bearspring—Spoke Factory.—It is reported that the Cumberland Estates Co. intends to establish a large spoke factory.

Bristol—Iron Furnace.—The Bristol Iron Furnace, which was recently purchased by a syndicate, will shortly be put in operation with a greatly increased capital. Col. Geo. L. Carter, of Pulaski, Va., can be addressed for information.

Bristol—Woodworking Factory.—The Dickson-Mason Lumber Co. in a letter to the Manufacturers' Record states that it expects to locate a factory for the manufacture of insulator pins and other woodworking specialties at some point in the South, probably at Bristol, but has not as yet fully decided on that point.

Brownsville—Water-works Improvement, etc.—The citizens will introduce a bill in the legislature asking for authority to issue \$50,000 of bonds for the purpose of improving the water-works system and making other needed improvements. Address "The Mayor."

Chattanooga—Planing Mill, etc.—Willingham, & Co. will erect a planing mill and other works.

Chattanooga—Spring-bed Factory.—The Chattanooga Spring Bed Co. has suspended operations for the purpose of reorganizing, increasing capital stock and doubling the capacity of its plant; operations will shortly be resumed.

Dayton—Pottery.—Jas. T. Darwin and T. W. Harris will establish a pottery.

Dayton—Stone Quarry.—F. W. Harris and A. G. Slawson will develop a whetstone quarry.

Dayton—Basket and Crate Factory.—G. D. Bridgeman & Co. have changed their saw and planing mills into a basket and crate factory.

Dayton—Cannery.—N. D. Reed will establish a cannery.

Dayton—Saw and Shingle Mill.—William McNells has erected and put in operation a new and complete saw and shingle mill.

Ducktown—Iron Mines.—The Ducktown Sulphur, Copper & Iron Co. is preparing to put in new machinery at its Mary mine, at a cost of \$10,000.

Fayetteville—Water Works.—Walter G. Kirkpatrick, Jackson, Miss., is preparing plans for a system of water works at Fayetteville; supply from mountain springs, with gravity flow to masonry, distributing reservoir and system of cast-iron pipes, all taps to be metered.

Henderson—Electric-light Plant.—T. B. Hardmann, N. J. Oxler, A. R. Oxler and J. C. Winningham have incorporated the Henderson Electric Light Co., with a capital stock of \$1500, for the erection of an electric-light plant.

Jackson—Cotton Mill.—Eastern capitalists propose locating a \$250,000 cotton mill in Jackson, provided the citizens will subscribe \$100,000 of the stock. J. D. Newton, of the Young Men's Business League, can be addressed for information.

Knoxville—Zinc Mines.—E. F. Buffat writes regarding the zinc deposits contained on two farms which he has leased near Knoxville, as recently referred to. The property is being developed and a 25-ton concentrator has been built; probably a stock company will be formed later on to further developments.

Knoxville—Harness Factory.—J. E. Martin, John W. Green, D. S. Sinclair, C. H. Smith and W. H. Gass have incorporated the American Harness Co., with an authorized capital of \$25,000, for the purpose of manufacturing harness and saddles. This company has been formed to succeed J. E. Martin & Co.

Monroe County—Gold and Silver Mines.—D. D. Nicholas and associates are developing gold and silver mines in Monroe county. Address Mr. Nicholas at Knoxville, Tenn.

Nashville—Iron-ore Company.—The Tennessee Iron Ore Co. has been incorporated by W. R. Cole, S. C. Frahue, W. K. Black and J. C. McLanahan, with a capital stock of \$10,000.

Nashville—Paint Shop.—The Nashville, Chattanooga & St. Louis Railway Co. has awarded contracts for the building of its paint shop recently burned. The company does not need any additional machinery. Address J. W. Thomas, president and general manager.

Polk County—Gold Mines.—Col. D. D. Nicholas, of Knoxville, has discovered and will develop a gold mine in Polk county.

Pulaski—Ice Factory.—McGrew & Turner will erect the ice factory lately noted; capacity to be five tons.

TEXAS.

Corsicana—Oil Company.—Chartered: The Mellor & Barnes Oil Co., by J. M. Hillyar, A. K. Barnes and A. F. Wood, with a capital stock of \$20,000.

El Paso—Fuel Company.—Chartered: The White Oaks Fuel Co., by F. W. Gallagher, J. F. Crosby and H. R. Wood, with a capital stock of \$5000, to conduct a general commission business.

Farmersville—Oil Mill.—Hansel & Scarborough, of Bonham, have purchased site in Farmersville, and will erect an oil mill with a capacity of ninety tons per day.

Fort Worth—Cotton-oil Mill.—R. K. Erwin, of Waxahachie, Texas, representing himself and others, has made a proposition for the erection and operation of a 16-ton oil mill in Fort Worth, cost of which will be \$40,000. Mr. Tuck Boaz, of Fort Worth, is interested in the enterprise and can be addressed for information.

Hillsboro—Electric-light Plant.—George B. Peyton will erect an electric-light plant in connection with his ice factory. Address S. J. Hunter, engineer, Cleburne, Texas.

Hooks Switch—Saw Mill.—William Cameron & Co., of Beaumont, are making arrangements for the establishment of a portable tie saw mill at Hooks Switch, with a capacity for cutting 50,000 ties a month. Address Claude L. Nabers, representative of the company.

Hutton—Mercantile Company.—The Carpenter Mercantile Co. has been incorporated with a capital stock of \$15,000 to conduct a general mercantile business by A. W. Carpenter, of Hutton; T. B. Cochran, of Austin, and John C. Wilkinson, of St. Louis.

Kaufman—W. A. Taylor, A. L. Self, G. B. Taylor and others have incorporated the W. A. Taylor Co., with a capital stock of \$25,000.

Longview—Ice Factory and Bottling Works.—The Longview Ice & Bottling Co. will rebuild its ice factory and bottling works. Address P. T. Pegnes, manager.*

Mexia—Mercantile Company.—D. N. Jackson, J. D. Jackson and H. E. Jackson have incorporated the Jackson Mercantile Co., with a capital stock of \$30,000.

Midland—Mercantile Company.—The Freedman Mercantile Co. has been incorporated, with a capital stock of \$10,000, by R. Freedman, I. S. Freedman and J. W. Edeña.

Mount Pleasant—Oil Mill.—Efforts are being made for the organization of a stock company for the erection of an oil mill. Names of interested parties will be announced later.

Orange—Saw Mill.—W. O. Brice will construct a floating saw mill, boat to be thirty feet beam, 100 feet in length and 36-inch draught; the mill will have a 20,000 or 25,000-foot capacity and employ about eighteen operatives.*

Raywood—Irrigating Plant.—Iowa capitalists who have under their control about 16,000 acres of rice lands at Raywood are preparing for the construction of a large irrigating canal, by means of which they can control the water. Address Mr. Harwood, manager, for particulars.

San Antonio.—Chartered: The San Antonio International Fair Association, with a capital stock of \$50,000, by V. P. Brown, H. D. Kampman, Frank Grice and others.

San Antonio—Flour-mill-machinery Plant.—C. H. Guenther, Erhard Guenther and Adolph Wagner have incorporated the C. H. Guenther & Son, with a capital stock of \$20,400, for the manufacture of flour-mill and mill stuffs.

Sharon—Lumber Mill.—The J. F. Keith Co., of Beaumont, has purchased and will operate the lumber mill of the Hooks Lumber Co. at Sharon.

Waco—Plumbing and Electrical-supply Company.—Chartered: Hill Bros. & Co., with a capital stock of \$10,000, to conduct a general plumbing and electrical-supply business, by B. H. Hill, A. S. Hill and Edward Phillips.

VIRGINIA.

Bateman—Saw Mill.—R. M. Kent, of Bluefield, and F. L. Peirce, of Cedar Springs, will erect a \$2800 saw mill at Bateman.

Chesterfield County—Cotton Mill.—A. J. Bradley, who lately leased the mills of the Marshall Manufacturing Co. and the Richmond Cotton Mills, at Manchester, Richmond, Va., has, with A. F. Merisett, W. B. Bradley, Manchester; A. Moorehouse, Darien, Conn.; C. M. Woodford, New York; A. W. Patterson, Richmond, Va., incorporated the United Cotton Mills, with an authorized capital of \$10,000; present equipment, 7600 spindles and 286 looms in the Marshall plant and 11,000 spindles and 315

looms in the Richmond plant; A. J. Bradley, president.

Crewe—Cannery.—Dr. Potts, of Prince George county, near Petersburg, Va., is investigating the advisability of removing his cannery to Crewe.

Ellerson—Grist and Flour Mill.—W. C. Newman & Bro. will erect a grist and flour mill of thirty barrels capacity; mill to be driven by water-power.*

Galt's Mills—Flour Mill.—E. J. Turner will make this summer the proposed improvements to his flour mill; will put in a 40-barrel equipment, thus doubling present capacity.*

Grapelawn—Flour Mill.—J. H. Wood will erect a flour mill, as reported during the week; machinery contracted for.

Green Bay—Pyrites Mines.—It is reported that Prof. Johannes Braun, J. N. Kurtz, Frank C. Gerbel and Louis Lestiner will purchase and develop a pyrites mine on the property of Frank H. Kauffman, near Green Bay.

Newport News—Telephone Extension.—The Southern States Telephone Co. is arranging to extend its lines from Newport News to Williamsburg. Address the company at Norfolk.

Norfolk—Farm-supply Company.—The Norfolk Farm Supply Co. has been incorporated, with a capital stock of \$25,000, to deal in farm supplies, by G. B. Todd, E. C. Gunther, S. B. Bull, of Norfolk, and E. E. Wilder, of Portsmouth.

Norfolk—Gas and Light Company.—The Quincy Light & Gas Co. has been incorporated, with Samuel B. Lawrence, of New York, president; John B. Summerfield, of Brooklyn, N. Y., vice-president; Harry C. Everdel, of Brooklyn, N. Y., secretary. These, with Armitage Mathews and Ruel W. Poor, of New York; Henry M. Haviland, of Brooklyn, and James W. Wilcox, of Norfolk, constitute the board of directors. This company has been organized to purchase, acquire, improve and operate lighting, manufacturing and industrial properties; capital stock \$600,000. Address James W. Wilcox, Norfolk.

Norfolk—Boot and Shoe Company.—The Hofheimer Bros. Co. has been incorporated to conduct a boot and shoe business; capital stock from \$25,000 to \$100,000. Officers—M. L. Hofheimer, of Richmond, Va., president; B. F. Hofheimer, of Norfolk, vice-president; J. C. Hofheimer, of Norfolk, secretary and treasurer. These, with D. L. Goldman and Harry Hofheimer, both of Norfolk, compose the board of directors.

Portsmouth—Shoe Company.—The Bay State Shoe Co. has been incorporated, with Robert Ridley, president; George P. Ganzer, vice-president; Michael J. Ginty, treasurer, and A. D. Moseley, secretary and general manager; capital stock not less than \$2000 nor more than \$5000.

Richmond—Ice Factory.—The Home Brewing Co. will erect an ice plant, with a daily capacity of 120 tons. Contract has been awarded.

Richmond—Construction Company.—Chartered: The Kanawha Construction Co., with an authorized capital of \$10,000, by F. C. Christian, B. S. Hume, R. R. Harrison, J. M. Valentine and others.

Richmond—Ether and Gas Works.—The American Ether Co. has been incorporated, with John B. Purcell, president; S. W. Travers, vice-president; W. C. Schmidt, secretary, and W. H. Zimmerman, treasurer, for the purpose of manufacturing sulphuric ether and to make and sell gas for heat, power and illuminating purposes. The capital stock is to be not less than \$37,500 nor more than \$50,000.

Suffolk—Tile Factory.—J. Clark & Son, of Ohio, are prospecting with a view of erecting a \$12,000 tile factory at or near Suffolk.

Unionville—Gold Mine and Plant.—Philadelphia capitalists have leased, it is reported, the old Grasty gold mine in Orange county of I. B. and J. P. Grasty, and propose to erect a modern mill to treat the ore.

Williamsburg—Brick Works.—Newport News capitalists will establish brick works in Williamsburg, to employ forty operatives. Mr. Plinkinton, of Williamsburg, can probably give information.

WEST VIRGINIA.

Charleston—Coal Lands, etc.—J. B. Thomas, C. Schotz, J. S. Spencer, J. M. J. Beale and Julia Beale have incorporated, with a capital stock of \$50,000, the Superior Coal & Lumber Co. for the purpose of purchasing and owning coal lands.

Hinton—Bridge.—The New River Bridge Co. has been incorporated by James T. McCreery, James H. Miller, A. R. Hedlin, C. B. Mahan, of Hinton, and Andrew Buchanan, of Chambersburg, Pa., for the construction

of a new bridge across the New river; capital stock \$50,000.

Martinsburg—Water Works.—The city will petition the legislature for permission to issue bonds for the purpose of putting in a new set of pumps, 2,500,000 gallons capacity, and four miles of pipe. Address A. F. Lambert, city clerk.*

Parkersburg—Woodworking Plant.—The Oil Well Supply Co., of Bradford, Pa., will begin at once the erection of a large woodworks plant in Parkersburg. Its products will be wooden devices used in the oil business. Address John Eaton, president, Bradford.

Slatersville—Oil and Gas Wells.—A charter has been granted to the Keystone Oil & Gas Co., of Chicago, for the purpose of drilling and operating gas wells at Slatersville. The capital stock is \$1,000,000; incorporators, Robert L. Gregory, J. M. Childers, Robert Sutor and Charles F. Hosford, of Slatersville, and Frank M. French, of Macdonald, Pa.

West Union—Water Works.—W. B. Osborn, of Clarksburg, W. Va., has contract for the construction of the West Union water works.*

BURNED.

Barnwell, S. C.—The cotton gin of Col. Mike Brown; estimated loss \$8000.

Charlotte, N. C.—The Shaw-Howell Harness Co.'s plant; estimated loss \$50,000. Also the plant of the Lindell Machine Co.; loss about \$45,000.

Elizabethton, Tenn.—The Jenkins Saw Mill.

Kingston Springs, Tenn.—The hotel of Matt F. Allen; estimated loss \$20,000.

Marlin, Texas.—The Arlington Hotel and Sanitarium; estimated loss \$65,000.

Richmond, Va.—A. D. Shotwell & Co.'s tannery and J. J. Wright's collar factory.

Richmond, Va.—The carriage factory and livery stable of James McDonough & Co.; estimated loss \$25,000.

Suffolk, Va.—The plant of the Courtland Lumber Co., near Suffolk; estimated loss \$7000.

Unadilla, Ga.—Gordon & Sons' grist mill.

BUILDING NOTES.

Adairsville, Ga.—Store Building.—Col. John W. Gray will erect a brick store building.

Alvin, Texas—Business Building.—C. S. Cummings will erect a brick building.

Baltimore, Md.—Warehouse.—A. Booth & Co. will erect a one-story brick warehouse 46x156 feet to cost \$7500.

Baltimore, Md.—Hospital.—The mayor has signed an ordinance appropriating \$60,000 for a site and building to be used as a hospital for infectious diseases. Address "The Mayor."

Baltimore, Md.—Church.—A. H. Bleier has completed plans for a \$15,000 addition to John Wesley A. M. E. Church, which will be built of brick with stone trimmings and will be equipped with electric lights, electric and gas combination fixtures, modern heating and ventilation.

Bristol, Tenn.—Business Building.—Dick Burson will erect at once a 27x120-foot building.

Catonsville, Md.—Barn.—William Gerwig has received contract for rebuilding the burned barn of Patrick Rogers, near Catonsville; new building to cost \$3500.

Charlotte, N. C.—Residences, etc.—Hook & Sawyer will prepare plans and specifications for residence for John Harrell; for business block for Vinton Liddell; for residence for Mrs. M. A. Prather; for residence for Mrs. C. E. Stevenson.

Charlotte, N. C.—Residences.—Hook & Sawyer are preparing plans for residences to be erected by Dr. I. W. Frison and John Harrell.

Chattanooga, Tenn.—Business Building.—Miller Bros. are having plans prepared for a two-story building.

Citico, Tenn.—Dwelling.—Adams & Bearden have prepared plans and awarded contract for the erection of a frame dwelling to cost \$25,000 for the City Water Co.

Clarkston, Ga.—School Building.—The board of school trustees will erect a new school building. Address F. N. Carter.

Cleburne, Texas—Store Building.—The Herron-Hodge Grocery Co. has been incorporated, with H. C. Gresham, president; W. Y. Hodge, vice-president; T. J. Herron, secretary-treasurer, for the purpose of erecting a large store building; capital stock \$50,000.

Corpus Christi, Texas—Hotel.—J. O.

Hardwicke will organize a \$150,000 stock company for the establishment of hotel, building for which has been purchased and will be improved at a cost of about \$50,000, improvements to include the erection of wharves, bathhouses, clubhouse, etc.

Crowley, La.—Residence.—J. J. Robertson will erect a residence.

Dahlonega, Ga.—Hotel.—The Dahlonega Consolidated Gold Mining Co. states that it will not erect a hotel, as recently reported.

Ducktown, Tenn.—Dwellings.—The Ducktown Sulphur, Copper & Iron Co. is erecting a number of dwellings.

Forsyth, Ga.—Store Building.—Cyrus Sharp will erect a store building.

Franklin, Tenn.—Business Building.—J. M. Nichols and associates contemplate the erection of a three-story stone business building.

Franklin, Tenn.—Business Building.—Mrs. Thomas F. Perkins and Green Williams will erect a \$10,000 business building, to have all modern improvements.

Goldsboro, N. C.—Residence.—Rose & Barrett, Raleigh, N. C., are preparing plans for a residence for W. T. Hollowell, frame, tin roof, brick foundation, cost \$2000. Address the owner.

Huntington, W. Va.—Hotel.—H. A. Thompson, of the McLure House, Wheeling, W. Va., has leased and will enlarge and remodel the Carolina Building in Huntington at a cost of about \$10,000; improvements to include steam heat, electric-light plant, refrigerator plant and other modern appliances.

Lancaster, Ky.—Hotel and Opera-house.—According to last week's report, a hotel and opera-house will be erected at a cost of \$18,000; also a Y. M. C. A. building at a cost of \$4000. Address John E. Stormes, secretary Y. M. C. A.

Laurens, S. C.—Business Building.—L. A. McCord will erect a two-story brick building with iron front.

Leesville, La.—Courthouse.—Plans and specifications will be received by the police jury of Vernon parish, Louisiana, until March 27 for the erection of a courthouse not to cost more than \$15,000. Address E. E. Smart, president police jury.

Macon, Ga.—Business Building.—Samuel Weischelbaum will erect a business building.

Lynnville, Tenn.—Dwelling.—N. E. Martin has awarded contract to James Barnett for the erection of a dwelling.

Mayfield, Ky.—Tobacco Warehouse.—G. R. Allen, George Ligon and L. B. Blalock will erect a new tobacco warehouse.

Monroe, La.—School Building.—Plans have been prepared for the erection of a \$30,000 high-school building. Address secretary school board for further particulars.

Newport News, Va.—Church.—Edward A. Marye is preparing plans for a new church to be erected by the St. Paul Episcopal congregation at a cost of \$28,000. Address Rev. J. Francis Riddle, pastor.

Norfolk, Va.—Hotel.—Charles H. Cassell, of Baltimore, Md., is preparing plans for a hotel to be erected at Willoughby Beach, near Norfolk, by President Williams, of the Norfolk Street Railway Co. The building will be three stories, 55x205 feet; will be of frame, with shingle roof, and will be equipped with electric lights, iron grilles, washstands, hardwood wainscoting, gas and electric-light fixtures, tiled floors and other modern fittings.

Oakland, Md.—Sanitarium.—The Mount Pisgah Chautauqua Sanitarium Co. has purchased the Oakland Hotel and will convert it into a sanitarium; will install heating plant and baths. Address Dr. W. M. Longstreths, superintendent.

Plano, Texas—Church.—Contract has been let for the erection of the new Christian church to cost \$6000. Address Rev. B. F. Wilson for information.

Plaquemine, La.—Bank Building.—Emile D. Frederic, 708 Union street, New Orleans, La., has contract for the erection of the \$5000 bank building at Plaquemine, as recently stated.

Raleigh, N. C.—Cottages.—Rose & Barrett are preparing plans for three cottages for Will Robbins, frame, shingle roof, brick foundation, finished in pine, cost \$3500. Address the owner.

Raleigh, N. C.—Residence.—Rose & Barrett are preparing plans for a residence for Dr. Thomas M. Jordan; structure will be of frame, press-brick foundation, slate roof, plate-glass and interior finished in North Carolina pine, finished natural; cost complete \$4000. Address the owner.

Statesville, N. C.—Residence.—Chas. E. Mills will erect a residence.

Statesville, N. C.—Office Building, etc.—

Dr. H. F. Long will erect a one-story brick office building and stables.

St. Louis, Mo.—Building Company.—The A. E. Cook & Son Building Co. has been incorporated by Austin E. Cook, Walter S. Cook and Ida L. Cook, with a capital stock of \$5000.

Tampa, Fla.—Warehouse.—I. S. Giddens & Co. have let contract for the erection of a \$14,000 warehouse.

Trenton, Tenn.—Courthouse.—Gibson county will shortly let contract for the erection of a three-story 80x90-foot courthouse, to cost about \$30,000; contractors will be expected to furnish supplies of all kinds. Address T. J. Happel, secretary building committee.

Washington, D. C.—Dwellings.—George N. Saegmuller will erect a four-story 22x85-foot dwelling, to have pressed-brick and light-stone front; John N. Nolan will erect seven dwellings, three stories, 20x56 feet, pressed-brick and brownstone fronts.

Wilson, N. C.—Residence.—H. G. Whitehead is having plans prepared by Rose & Barrett, Raleigh, N. C., for a residence, to be frame, press brick, veranda finish, plate glass, etc. Address the owner.

Winchester, Ky.—Residence.—G. Lee Wainwright will erect a residence.

Yorkville, S. C.—Warehouse.—B. N. Moore will erect a cotton warehouse of about 2000 bales capacity, as recently reported, but will not begin work on same until about May or June.

RAILROAD CONSTRUCTION.

Railways.

Anderson, S. C.—The Seaboard & Gulf Railroad Co. has been formed by George M. Brinson, of Stillmore, Ga.; George Ketchum, of Macon, Ga., and others to build a railroad from Anderson through Elbert county, Georgia, also Wilkes, Warren and adjacent counties, to the southern line of Thomas county, to terminate at a point on the Gulf of Mexico at Carrabelle, Fla. The estimated length of the line is about 450 miles, and the capital stock is \$1,000,000.

Aurora, W. Va.—The Preston Lumber & Coal Co. has built a portion of its railroad in Preston county and will soon complete it to Aurora.

Baltimore, Md.—It is reported that the Consolidated Railway Co. has under consideration an extension of its electric line from Ellicott City to St. Charles College, a distance of six miles along the Frederick road. W. A. House, at Baltimore, is general manager of the company.

Blakely, Ga.—A correspondent of the Manufacturers' Record states that the Willis & Cole Lumber Co. is interested in the proposed railroad which will terminate at Blakely. The line is to be about ten miles long and will reach a tract of timber land. The capital of the company is to be \$36,000.

Chattanooga, Tenn.—The Chattanooga Rapid Transit Co., which proposes to build a road into Northern Georgia to the coal fields and through Chickamauga, has obtained a charter. Its capital stock is placed at \$125,000. S. W. Divine, of Chattanooga, is the principal promoter. [This is independent of the Lookout Mountain line.—Ed.]

Denison, Texas.—It is stated that work is to begin upon the Denison & Bonham Railway immediately. It is understood that it will be extended to the Indian Territory coal fields from Denison. R. C. Foster is president of the company, and John Scullin, who has been prominently connected with street railways in St. Louis, Mo., is one of the promoters. The first section to be built will be forty miles in length. The people of Bonham, Texas, have taken \$50,000 of the capital stock.

Devon, W. Va.—Among those interested in the West Virginia & Kentucky Railroad Co., recently incorporated, is F. C. Fischer, of Ironton, Ohio. This company proposes to build a line from Devon to Paw Paw, Ky.

Dixon, Ky.—It is reported that bonds have been floated which will insure the construction of the proposed railroad from Dixon to a connection with the Illinois Central system. The Southern Construction Co., of St. Louis, Mo., is promoting the enterprise.

Fort Worth, Texas.—It is stated that contracts have been let for the improvements to be made by the Texas & Pacific Railway Co. in the suburbs, which include extensions to its yards, also buildings. The estimated expense is \$250,000. L. S. Thorne is general manager of the company at Dallas, Texas.

Fredericksburg, Va.—Hon. Charles H. Gibson, of Easton, Md., has been elected president of the Virginia, Fredericksburg & Western Railroad. It is stated that officers

of the company are to go abroad in the near future to float bonds to build this line.

Greenville, Mo.—George K. Smith, general freight agent of the Williamsville, Greenville & St. Louis Railroad Co., informs the Manufacturers' Record that it is expected to extend this line to Chester on the Mississippi river, a distance of about sixty-five miles, during the present year; 60-pound rails will be used. No contracts have been let as yet.

Hopkinsville, Ky.—It is reported that another survey is to be made of what is known as the Cairo, Hopkinsville & Cumberland Gap Railroad, proposed from Cairo, Ill., to Cumberland Gap, Ky., a distance of about 300 miles. B. A. Neale, at Mayfield, is president of the company.

Jaeger, W. Va.—It is stated that a contract has been let for building a portion of the Jaeger & Southern Railroad from the town mentioned to Cane Creek. William J. Janney is chief engineer of the company.

Kansas City, Mo.—The branch of the Kansas City, Pittsburg & Gulf from Trimble to Gower, Mo., has been graded, and track is to be laid at once. It is about ten miles long.

Longview, Texas.—A correspondent of the Manufacturers' Record writes that it is expected to begin work on the Texas, Sabine Valley & Northwestern Railroad about March 1. The line is in operation for about forty miles, and is to be extended to Sabine Pass. G. M. D. Grigsby is president of the company.

Lumberton, N. C.—The Carolina Northern Railroad Co. has been chartered to build a railroad from Lumberton to Marion, S. C., a distance of forty-five miles. The company is capitalized at \$500,000, and it is reported consists of Philadelphia parties. Alfred A. Sparks is president of the company, and George Westen, secretary.

Middletown, Md.—It is reported that there is a possibility that the electric line now in operation from Frederick to Myersville will soon be extended to connect with Hagerstown. Douglass Bros., of Millerstown, Pa., are forming a company which may build the extension. It will be eight and one-half miles long, connecting with the Hagerstown Electric Line at Funkstown, Md.

Marion, N. C.—The proposed extension of the Ohio River & Charleston Railroad into Tennessee has been revived by a bill pending in the North Carolina legislature to organize the South Carolina & Georgia Extension Railroad Co. A corporation of the same title has been chartered in South Carolina. P. J. Sinclair, of Marion, N. C., is promoting the enterprise.

Morgantown, W. Va.—The Morgantown & Kingwood Railroad Co. has been chartered to build the proposed line between Morgantown and Kingwood, a distance of twelve miles. George C. Sturgis, of Morgantown; George M. Whitescarver, of Grafton, and S. H. Gowing, of Syracuse, N. Y., are mentioned as among the directors.

Osceola, Mo.—It is reported that a contract has been given to extend the Dickeyville, Osceola & Northern road from Wardell to Osceola, a distance of twenty-five miles. Forrester & Warren, of Midway, Ark., are the contractors. George W. Decker, at Newport, Ark., is president of the company.

Raleigh, N. C.—About twenty miles of grading has been completed on the Cape Fear & Northern Railroad, and twelve miles of track have been laid. The line is to be built from Raleigh to Lillington. J. C. Angler, at Holly Springs, N. C., is general manager of the company.

River Falls, Ala.—About three miles of track have been laid on the Alabama & Florida Railroad, being built by the Louisville & Nashville between River Falls and Georgianna, Ala., a distance of thirty miles. The entire length of the road has been graded. R. M. Quigley & Co., of St. Louis, are contractors.

Sumter, S. C.—Engineers are now making surveys for the proposed extension of the Wilson & Summerton branch of the Atlantic Coast Line, between Camden and Sumter. John R. Kenly, at Wilmington, N. C., is general manager.

Sumter, S. C.—Messrs. Oliver & Walker, of Langley, S. C., have secured a contract for the construction of the Sumter & Wateree Railroad, which is to be sixteen miles long and includes several bridges. Work is to commence immediately. J. B. Blanding, at Sumter, is president of the railroad company.

Tampa, Fla.—The Ohio syndicate which secured a concession from the State of Florida for railroad purposes several years ago, it is reported, has taken up the question of building the proposed line through the western portion of the State. It is reported that

the line will be built from Jacksonville and extend to Tampa Bay, a railroad now in operation being utilized for the Jacksonville portion of the system. Crosby Thompson, of Cleveland, Ohio, is stated to be one of the promoters.

Valdosta, Ga.—D. C. Ashley and W. R. Roberts have purchased a half interest in the Valdosta Railroad, which is in operation from Valdosta to a point near Madison, Fla. It is understood that arrangements are being made to extend the line to a connection with the Florida Central & Peninsular Railroad at once. J. M. Wilkinson, of Valdosta, is the principal promoter.

Waco, Texas.—Surveys are being made for extensions to the freight-yard of the St. Louis Southwestern in the suburbs, and it is reported that several miles of track will be built. A. G. Liggett is superintendent.

Washington, D. C.—It is stated that the Hevener Construction Co., of Philadelphia, has taken the contract to build the proposed Washington & University Railroad, of which J. D. Croissant is president. His address is Room 31, Ohio Bank Building.

Washington, D. C.—It is reported that the Washington & Chesapeake Beach Railroad Co. has made surveys of the proposed Drum Point Railroad, and that it may take up this enterprise and complete the line to a connection on the Washington & Chesapeake Beach. Otto Mears is president, and L. H. Hyer, chief engineer, of the Chesapeake Company.

Wilmington, N. C.—There is a possibility that the Wilmington Seacoast Railroad will be changed into a trolley line. It is twelve miles in length. George R. French is general manager at Wilmington.

Street Railways.

Cleburne, Texas.—The city council has granted a franchise to a company which proposes to build an electric line in that city. The mayor will give further information.

Machinery, Proposals and Supplies Wanted

Manufacturers and others in need of machinery of any kind are requested to consult our advertising columns, and if they cannot find just what they wish, if they will send us particulars as to the kind of machinery needed we will make their wants known free of cost, and in this way secure the attention of machinery manufacturers throughout the country. The MANUFACTURERS' RECORD has received during the week the following particulars as to machinery that is wanted.

Barrel Machinery.—J. T. Cobb, Tatum, Ala., wants a drum saw and an equalizer saw for barrel staves.

Belting.—Eno Cotton Mills, Hillsboro, N. C., is in the market for belting.

Boiler.—See "Water Works."

Boiler.—The city of Yorkville, S. C., contemplates purchasing a second-hand 60 to 80-horse-power boiler; correspondence solicited. Address W. R. Carroll, mayor.

Boiler and Engine.—Geo. S. Parkes & Co., Nashville, Tenn., are in the market for a 40-horse-power slide-valve engine and a 50-horse-power boiler.

Boiler and Engine.—Williamsburg Electric Co., Williamsburg, Ky., is in the market for one side-crank engine, seventy-five horsepower, and one tubular boiler, eighty horsepower, and one tubular boiler, fifty horsepower, new or second-hand.

Boiler Plant.—Reincke Coal Co., Madisonville, Ky., will buy boiler plant to consist of four large boilers not less than seventy-two inches in diameter, with necessary fittings, etc.

Bone Mill.—J. C. Staples & Co., of Harrisonburg, Va., want to correspond with manufacturers of machinery for cutting green bones for poultry and small plant for the manufacture of commercial fertilizers.

Brick Machinery.—The Pine Bluff Brick Co., A. Brewster, secretary, Pine Bluff, Ark., wants information for burning brick with gas.

Broom Machinery.—T. B. Marsh, Salisbury, N. C., wants to buy outfit for broom factory.

Building Materials.—N. Kirkman, Nashville, Tenn., wants to buy material for partitions, expansion iron, etc., metallic ceilings and \$5000 or \$6000 worth of plate glass.

Building Materials.—Queen City Sash & Door Co., Springfield, Mo., wants quotations

on a carload of building paper (not "material," as given yesterday).

Building Materials.—Eno Cotton Mills, Hillsboro, N. C., is in the market for stone for engines' foundation work.

Can Machinery.—J. C. Staples & Co., Harrisonburg, Va., want to correspond with manufacturers of can machinery.

Cannery.—C. H. Schutte, Spartanburg, S. C., will probably want prices, etc., on canning machinery.

Canning Machinery.—J. C. Staples & Co., Harrisonburg, Va., want to correspond with manufacturers of canning outfits.

Cotton Ginnery.—James A. Crowell, Mint Hill, N. C., will want two 70-saw gins, feeders, condensers, self-tramping press, etc.

Cotton Goods.—Wiggins & Ide, Quincy, Fla., will probably contract for the manufacture of several hundred thousand yards of cotton strips, one and one-half or two inches wide, of heavy drill or eight-ounce duck, in bolts of sixty yards.

Cotton-mill Machinery.—See "Textile Machinery."

Creamery.—The Central Creamery Co., Atlanta, Ga., will buy equipment for creamery. Address F. C. Betts, secretary-treasurer.

Dredging Machinery.—E. J. Edwards, Abbeville, La., wants prices on new or second-hand dredging machinery, scoop or clam-shell; state prices and capacity in cubic yards per day.

Drilling Machinery.—W. H. Brown, of the Brown Milling Co., Searcy, Ark., wants a diamond drill.

Electrical Machinery.—See "Mining Equipment."

Electric-light Plant.—The city of Tuskegee, Ala., will want bids on the erection of an electric-light plant. Address "The Mayor."

Electric-light Plant.—Owen Ford, engineer, 710 Security Building, St. Louis, Mo., and C. O. Harrington, mayor, Carthage, Mo., will receive bids until January 17 for the construction of the proposed electric-light plant at Carthage and for furnishing the machinery; plant to cost \$25,000.

Electric-light Plant.—The city of Thibodeaux, La., will receive sealed proposals until February 9 for the machinery, apparatus, etc., for a complete electric-light plant. Plans and specifications on file with R. G. Naguin, city marshal, and G. U. Borde, M. E., consulting engineer, Liverpool & London & Globe Building, New Orleans, La.

Elevator and Plant.—Sealed proposals will be received until February 1 for the installation of the elevator plant in the new courthouse for Baltimore city, now in course of erection. Copies of the drawings and specifications may be seen on and after January 18 at office of inspector of buildings, City Hall; at office of architects, Wyatt & Nottling, 4 East Lexington street; at Builders' Exchange, Baltimore, or a copy of the drawings and specifications will be furnished on application and payment of \$5, which will be refunded upon return of the same complete. Each bid must be accompanied by a certified check of a sum not less than 2 per cent. of the amount of the proposal, made out to the order of the mayor of Baltimore city. The right is reserved to reject any or all bids and to waive any defects or informalities in any bid should it be deemed to the interest of the city to do so. All bids received after the time stated will be returned unopened. Building Committee of the New Courthouse; Henry D. Harlan and Robt. H. Smith, subcommittee, Baltimore, Md.

Elevators.—N. Kirkman, Nashville, Tenn., wants to buy two elevators, either electric or hydraulic.

Feed and Grist Mill.—C. M. Randall, Olney, Mich., wants to buy machinery for grist and feed mill, new or second-hand.

Fertilizer Mill.—See "Bone Mill."

Fire Equipment.—Burroughs & Collins Co., Conway, S. C., wants to correspond with parties handling fire engines.

Flour Mill.—E. J. Turner, Galt's Mills, Va., will want complete 40-barrel flour mill.

Flour-mill Machinery.—W. C. Newman & Bro., Ellersong, Va., will want a 30-barrel flour and grist mill.

Foundry Equipment.—Spayd Bros., Van Wert, O., want to purchase a cupola.

Gas and Electric Fixtures.—N. Kirkman, Nashville, Tenn., wants to buy gas and electric fixtures.

Grist Mill.—J. C. Staples & Co., Harrisonburg, Va., want to correspond with manufacturers of machinery for roller-process grist mill, hominy mill and buckwheat machinery complete.

Grist Mill.—T. J. Leeffe, 47 West Sixteenth street, New York, N. Y., wants names of

manufacturers of machinery for making flaked cereals.

Grist Mill.—The J. C. Hollingsworth Wheel Co., Wheel, Md., wants to buy chop, feed and corn mill.

Grist-mill Machinery.—See "Flour-mill Machinery."

Haulage Plant (Electrical).—See "Mining Equipment."

Hoisting Equipment.—See "Saw-mill Machinery."

Hose.—Protector Fire Company No. 2, Abbeville, La., wants prices on new or second-hand four-inch suction hose.

Ice Machinery.—W. H. Brown, of the Brown Milling Co., Searcy, Ark., will want to purchase an ice plant.

Ice Machinery.—M. W. Johnson, Paducah, Ky., is in the market for a brine refrigerating machine.

Ice Machinery.—The Central Creamery Co., Atlanta, Ga., will buy equipment for refrigerating plant. Address F. C. Betts, secretary-treasurer.

Ice Machinery.—The Longview Ice & Bottling Co., Longview, Texas, is in the market for a complete 10-ton ice plant. Address P. T. Pegnes, manager.

Labels.—J. C. Staples & Co., Harrisonburg, Va., want to correspond with manufacturers of labels.

Laundry Machinery.—Green & Sherrill Statesville, N. C., want to buy steam-laundry supplies, outfit complete.

Machine Tools.—The Cameron & Barkley Co., Charleston, S. C., is in the market for a second-hand pipe-cutting and threading machine for seven-inch and eight-inch pipe.

Machine Tools.—H. A. Mims, Weldon, N. C., wants to buy second-hand machines for machine shop, such as lathes, planers, milling machine and drill press.

Mining Equipment.—Reincke Coal Co., Madisonville, Ky., will buy dynamo and electrical apparatus for haulage plant and mining.

Naval Supplies.—Proposals will be received at bureau of supplies and accounts, Navy Department, Washington, D. C., until January 24, to furnish at the navy-yard, Norfolk, Va., a quantity of galvanized iron, white oak, lead pipe, sheet lead, steel rivets, steel plates and shapes, solder, ingot copper, slab zinc and pig tin. Blank proposals will be furnished upon application to the navy pay office, Norfolk, Va., or to the bureau. Edwin Stewart, paymaster-general, U. S. Navy.

Paper (Building).—See "Building Materials."

Piping.—See "Water Works."

Piping.—Sealed proposals will be received till January 24 for about seven miles of terra-cotta sewer pipe varying from four inches to twelve inches in diameter and the connections, to be delivered on board cars at East Liverpool, Ohio. Specifications will be furnished upon application to city engineer. F. H. Croxall, secretary to sewer commissioners.

Planer.—Wanted.—A 60x60-inchx12-foot planer, fitted with two heads on cross-rail, sideheads on both housings; latter to have power feed; arrange sideheads to cut from five to four feet; cross-rail to be operated by power; planer to have improved reversing gear, with a return of about eighty feet per minute. Also want a 48x48x12-foot planer, fitted as above described. Second-hand machines will be considered within range if above sizes. Address "Planer," 53 Central avenue, Cincinnati, Ohio.

Powder-mill Machinery.—C. G. Dempsey, 46 Main street, Springboro, Pa., wants to correspond with manufacturers of black-powder-mill machinery.

Printing Press.—Edwards & Addison, Abbeville, La., want a second-hand cylinder press to print 28x40 (Fairhaven, Hoe or Babcock preferred).

Pumps.—See "Water Works."

Pumps.—T. F. Johnson, No. 1920 Powell avenue, Birmingham, Ala., wants to correspond with manufacturers of steam pumps.

Railway Equipment.—Burrughs & Collins Co., Conway, S. C., wants to correspond with parties handling railway equipment.

Railway Equipment.—Williamsville, Greenville & St. Louis Railway Co., Greenville, Mo., will be in the market for 60-pound rails for an extension of sixty-five miles. Address George K. Smith, general freight agent.

Railway Equipment.—Allen Bros. & Wadley, Limited, Allentown, La., are in the market for light standard-gauge locomotive twenty-eight to thirty tons weight.

Rice Machinery.—Charles F. Hancock, Chaires, Fla., wants addresses of manufacturers of rice machinery.

Rubber-stamp Supplies.—J. Thomas Pres-

son, Hickory, N. C., wants addresses of manufacturers of vulcanizers and rubber-stamp supplies.

Saw-mill Machinery.—Charles Steen, Abbeville, La., wants prices on saw-mill machinery.

Saw-mill Machinery.—W. O. Brice, Orange, Texas, wants a second-hand hoisting rig of about twelve horse-power.

Shafting.—Eno Cotton Mills, Hillsboro, N. C., is in the market for shafting.

Sugar-mill Machinery.—Martin Bagley, Ramsey, La., is in the market for a new sugar-mill outfit of 1000 tons daily crushing capacity, with vacuum pans, etc.

Tanks.—See "Water Works."

Telephone Equipment.—E. W. Berdine, Abbeville, La., wants prices on telephone supplies.

Textile Machinery.—Box 43, Statesville, N. C., wants information and prices on machinery for manufacturing cotton rope, sash cord, seamless sacks and back-band webbing.

Thermometers.—Asheboro Wood & Iron Works, John T. Moffitt, secretary-treasurer, Asheboro, N. C., is in the market for two registering thermometers for dry-kiln.

Vulcanizers.—See "Rubber-stamp Supplies."

Water Works.—The city of Tuskegee, Ala., will want bids on the construction of a system of water works. Address "The Mayor."

Water Works.—Junction City, Ark., contemplates putting in a water-works plant and will probably want bids. Address W. W. Davis, mayor.

Water Works.—The city of Martinsburg, W. Va., contemplates putting in a new set of pumps, 2,500,000 gallons capacity, and

about four miles of pipe. Address A. F. Lambert, city clerk.

Water Works.—W. B. Osborn, Clarksburg (not West Union, as given yesterday), W. Va., will require at once water-works equipment and supplies, as follows: 100 tons of four-inch and six-inch cast-iron water pipe, sixteen fire hydrants, sixteen four-inch and six-inch gate valves, 25-horse-power portable boiler, 10x6x12 duplex pump, 120 feet five-inch wrought pipe, corrugated metal for pump station, one or two cypress storage tanks (50,000 gallons capacity), necessary fittings, hemp, lead, etc.

Water Works.—Sealed proposals will be received by the Home Crystal Water Co. until January 28 for the erection of a complete water-works system at New Albany, Ind., consisting of twenty-three miles of 4 to 20-inch pipe, 200 fire plugs, 124 valve boxes, boiler and pump-house, suction line and filter crib, etc. Certified check of \$2000 must accompany each bid. Plans and specifications may be seen at office of president, Peter Arlund, Equitable Building, Louisville, Ky., or at office of the engineer, Frank Schefold, 1207 East Spring street, New Albany, Ind. Bids must be for cash or bonds. Each bidder is expected to examine the conditions on the grounds. Geo. Borgerding, Louis Blr and Frank Schefold, committee.

Well-drilling Machinery.—Herbert A. Ford, Ocala, Fla., is in the market for a well-boring machine on trucks; wants quotation of lowest price f. o. b. cars or delivered in Florida.

Woodworking Machinery.—Charles Steen, Abbeville, La., wants prices on woodworking machinery.

Woolen-mill Machinery.—Chatham Manufacturing Co., Elkin, N. C., will buy machinery about next June.

GENERAL INDUSTRIAL NEWS.

The Clark Ink Co., formed to manufacture inks at Portageville, Wis., will have \$10,000 capital.

John N. Ward and others have formed the John N. Ward Co., to carry on general manufacturing at Peoria, Ill.

The Duncan Paper Co., of Mechanicsville, N. Y., is about to construct an addition to its plant which will cost \$60,000.

F. S. Hauser is one of the directors of the Sangamo Electric Co., formed to manufacture electric appliances at Springfield, Ill.

A plan is under way to erect a silk mill at West York, Pa. George B. Billmyer is reported as one of the company interested.

The Wolverine Sugar Co., recently organized in Michigan, will have its headquarters at Benton Harbor. It has \$200,000 capital stock.

C. S. Miller, of Brookline, Mass., is a director of the Boston Cast Steel Casting Co., of Portland, Me., organized with \$15,000 capital.

The monument works at Shelton, Conn., it is stated, have been sold to Dominic Valerio, of New Haven, who will continue the business.

The Eclipse Foundry Co., recently formed at Belleville, Ill., will have a capital stock of \$6000. Benjamin A. Taylor is one of the directors.

William H. Channon may be addressed relative to the Racky Manufacturing Co., recently formed at Quincy, Ill., with \$10,000 capital stock.

Henry Berd, of Orange, N. J., may be addressed relative to the Moonells Tobacco Co., recently formed in that State with \$250,000 capital stock.

The National Gas Machine Co., recently formed in Illinois, will have its headquarters at Moline. William Butterworth may be addressed.

The Canonsburg Iron & Steel Co., of Pittsburg, Pa., will have eight mills in operation when the three mills recently contracted for are completed.

A company which will manufacture horse-shoes at Pittsburg, Pa., has been formed, with \$100,000 capital stock, by H. E. Anderson and others.

The Richmond Company has been formed to manufacture medicines at Tuscola, Ill., with \$30,000 capital stock. T. R. Orr is one of the directors.

The Grand Rapids Water Power Co. has been formed for the purpose indicated in the title at Grand Rapids, Minn., by D. N. Gunn and others.

H. D. Shedd and A. N. Ferguson are interested in a company formed in Rochester, N. Y., to manufacture a bicycle tire which is

claimed non-puncturable. It is called the Rochester Tire Co., and has \$15,000 capital stock.

A patent machine for manufacturing tagging will be made by the Snyder Company, recently formed at Dayton, O. D. N. Snyder may be addressed.

Another motor-carriage company is termed the Eaton Company, incorporated at Portland, Me., by A. M. Sheehan, of Boston, Mass., and others.

The Perspecto Manufacturing Co. is a Chicago corporation which will manufacture optical goods. H. H. Hill and F. W. Kraft are among the officers.

The Grant Steel Fence Co. will manufacture fences at Cleveland, Ohio, with \$50,000 capital stock. E. G. Grant, at Willoughby, Ohio, may be addressed.

The McKinnon Dash Co., of Buffalo, N. Y., has purchased a controlling interest in the dash department of the Columbus Buggy Co. and the Peters Dash Co.

Messrs. Spayd Bros., of Van Wert, O., will build the machine shop recently referred to by day labor. The officers of the concern are E. C. and M. P. Spayd.

A Bethlehem dispatch is to the effect that Andrew Carnegie has purchased the steel plate mill of the Bethlehem Iron Co. at a price reported to be \$1,000,000.

J. W. Eaton and N. A. Warren are interested in the Green Mountain Product Co., organized to manufacture beverages at Babylon, N. Y., with \$100,000 capital stock.

The Worth Bros. Co., of Coatesville, Pa., has purchased property on which eventually it will erect another addition to its plant, although it has recently enlarged its facilities.

Carl C. Curtis, 23 Union avenue, Allegheny, Pa., may be addressed relative to the proposed plant for making Portland cement, which may be erected near Sandusky, Ohio.

The Standard Gas Engine Co. will have its plant at Oil City, Pa. It has been formed to manufacture gas engines. Among those interested are J. P. Stroyer and J. W. Raymond.

The damage by fire to the plant of the Aetna Iron & Steel Co., at Mingo Junction, O., is estimated at \$40,000. Repairs will be made immediately. The bar mill was destroyed.

The proposed silk factory at Plainfield, N. J., will be operated by the Watchung Silk Co., and will be located in a building already secured. H. C. Runyon is one of the company.

The company which proposes to erect a tin-plate plant at Sharon, Pa., includes William H. Saunders, of Hammond, Ind. It is under-

stood that four mills will be constructed for the enterprise.

The Excelsior Compressor Co., of 238 Washington street, Newark, N. J., will manufacture machinery for compressing air with \$100,000 capital stock. Irvin G. Cooper may be addressed.

A dispatch from New Haven, Conn., is to the effect that the National Folding Box Co.'s new factory will be five stories high and increase the capacity of the present plant fully 25 per cent.

The addition to the American Steel Foundry Co.'s plants at Granite City, Ill., will include a casting building 400 feet long and nearly 100 feet in width. A contract has been let for the structure.

The New England Fireproof Co. has been formed by C. C. Blanchard, of Lynn, Mass., and others to manufacture fireproof bricks, with \$1,000,000 capital stock. It has been organized under the laws of Maine.

W. K. Donaldson is interested in the Portland Brick & Stone Co., which will have its office at 301 Market street, Camden, N. J. This company will manufacture building material, and has \$100,000 capital stock.

A patent copying machine is to be manufactured by the New Era Co., of 109 Fallsade avenue, Hoboken, N. J. The company is capitalized at \$25,000, and includes Anson O. Cowles and Lester R. Alexander.

There is a possibility that a bicycle manufactory will be erected at Toledo, Ohio, by the International Association of Bicycle Workers. The president of the union at Toledo will give further information.

A dispatch from Louisville, Ky., is to the effect that manufacturers of jeans are considering the formation of a combination, which will limit the product to the demand and regulate the price of this material.

Thomas L. McKeen, of Easton, Pa., is interested in the Acme Railway Equipment Co., which will manufacture specialties for railway cars. Its offices are stated to be No. 1 Montgomery street, Jersey City, N. J.

John L. Sword is one of the stockholders of the Repeating Novelty Co., which will manufacture toys, with \$125,000 capital. The company may be addressed at the New Jersey Trust Co.'s buildings, East Orange, N. J.

John Porter, of Pittsburg, Pa., may erect a plant for manufacturing fire-brick at Port Homer, O. It is stated that clay deposits at this point have been purchased for the purpose. Mr. Porter's address is Carnegie Building.

The Quebec Bridge Co., of Quebec, Que., it is understood, will receive bids until March 1 for a bridge across the St. Lawrence river, which is to be used for railways and vehicles. Ulric Barthe is secretary of the company.

A new chemical company recently organized in New Jersey is the Litholine Chemical Co., whose offices will be in the Corporation Trust Co.'s building at Jersey City. It has \$125,000 capital stock, and among the directors is Henry W. Meen.

As an indication of the demand for motor trucks, it is announced that the Consolidated Ice Co., of New York, has determined to utilize these vehicles and has decided to procure 1000 of them. It has invited bids from constructing companies.

The Grossman Hardware Manufacturing Co. succeeds the Gross Manufacturing Co., at Chicago, and the capital has been increased to \$50,000. It is stated that the increase has been decided upon in order to increase the company's facilities.

The city of Philadelphia is considering an addition to its water-works building at a cost of \$2,700,000. A. Trautwine is chief of the water-works department. It is calculated to build a plant which will have a capacity of 80,000,000 gallons daily.

The New York Steel Fence Co. is a recent incorporation, with \$75,000 capital stock, to manufacture steel and iron wire for fencing, etc. Its offices will be at 115 Plymouth street, Jersey City, N. J. W. O. Chapman, of Plainfield, N. J., is one of the directors.

A dispatch from Hazard, Pa., is to the effect that the largest plant for manufacturing zinc in the world will be in operation at this place when the plant now under construction is erected. It is stated that nearly sixty different buildings will be required.

The Schoen Pressed Steel Co. and the Fox Steel Equipment Co., of Pittsburg, it is announced, have made arrangements for consolidation, with \$3,000,000 capital stock. The two companies control three plants and manufacture a variety of steel specialties.

A dispatch from Pittsburg is to the effect that Messrs. James Jones & Sons, of that city, have recently purchased 800 acres of coal land on the Monongahela river, and

will carry on extensive mining operations, installing apparatus which will cost \$100,000.

The Royersford (Pa.) Foundry & Machine Co., in a letter to the Manufacturers' Record, writes that it has purchased the plant of the American Tire and Wheel Works, partly destroyed by fire. The company has not decided what improvements will be made as yet.

According to a dispatch from Providence, R. I., the International Power Co., referred to elsewhere in this issue, has made an offer to purchase the plant of the Corliss Steam Engine Co. in that city. It is stated that if the purchase is made the works will be enlarged.

Phillip J. Reynolds is a director of the Diamond Wood Co., formed to manufacture woodworking machines, also woodwork, etc., with \$1,000,000 capital stock. This is a New Jersey corporation, which has its offices in the Corporation Trust Co.'s building, at Jersey City.

The Pittsburg Reduction Co., of Pittsburg, Pa., has secured an order for 770 tons of aluminum, which will be sent to Belgium. It is calculated that the contract involves over \$900,000. This is the largest export order for this metal ever secured by an American concern.

C. S. Dempsey, of Springboro, Pa., one of the directors of the Rock Glycerine Co., writes the Manufacturers' Record that this company will probably add a mill for manufacturing black powder during the present year. The company may be addressed at 6 Main street, Bradford, Pa.

Another company to construct railway cars, also trucks of steel, has been formed with \$25,000,000 capital. Its offices will be at 243 Washington street, Jersey City, N. J., and it is entitled the Pressed Steel Car Co. Adrian H. Larkin and Arthur N. Vanbrunt, of Jersey City, are interested.

The Crystal Ice Co., of Allegheny, Pa., will erect one three-story addition to its plant, also an engine-room, at a cost of \$25,000. Contracts will be let February 1, and 350 horse-power will be utilized. The main building will be 200x200 feet in size. C. A. Anderson is president of the company.

According to a dispatch from Tacoma, Wash., the Rockefeller syndicate has decided to construct an electric plant which will operate sixty-five miles of line, besides furnishing light for several villages in the vicinity of Everett. The representative of the syndicate is located at Everett and is now conducting negotiations.

The patents of Arthur S. Kennedy for treating the palmetto have been secured by the Palmetto Company, recently organized at Philadelphia with \$3,500,000 capital stock. It is stated that the processes include the use of the plant for manufacturing vegetable glue, a substitute for cork, paint and other products. Fiber for building purposes is also to be made. It is stated that the company already has a factory at Astor, Fla.

The Third Avenue Railroad Co., of New York, has given an order to the Westinghouse Company, of Pittsburg, to furnish all of the machinery for its power-house, which is to be the largest yet constructed in the United States. The Westinghouse-Church-Kerr Company prepared the plans for the building and apparatus. The plant will contain sixteen engines, connected with generators of 3000 kilowatts. The engines will have a total capacity of nearly 100,000 horse-power when working to their greatest capacity. The machinery will include two travelling cranes of a capacity of 100 tons each.

The General Commercial Co., which, as noted in the last issue of the Manufacturers' Record, is to erect an ice plant on Staten Island, it is stated, has purchased 125 acres and secured 1200 feet water front. It is announced that four buildings will be erected to be 500, 300, 250 and 175 feet long, respectively, for storing the ice. A large number of artesian wells will be bored to secure water, from which the ice will be made by the latest refrigeration process. The Pennsylvania Iron Co., of Philadelphia, has the contract for the buildings. William L. Elkins and R. B. Ayers, both of Philadelphia, are interested in the company.

The National Air Power Co. and the Auto-Truck Co., recently referred to in the Manufacturers' Record, have been incorporated under the laws of New Jersey. The Power Company has \$7,000,000 capital stock and the Truck Company \$1,000,000. The Power Company now controls the Rhode Island Locomotive Works, and, it is understood, is negotiating for several other plants, which will enable it to turn out vehicles of different kinds to be operated by compressed air. Among the directors of the Truck Company are Senator Arthur P. Gorman, of Laurel, Md.; Richard Croker, of New York, while Joseph H. Hoadley and Henry E. Knight,

inventors of the Hoadley-Knight system of compressed air, are in the directory of the Power Company. Joseph Leiter, of Chicago, is also actively interested.

TRADE NOTES.

Cotton-mill Site.—A good location for manufacturing plant is offered in North Carolina. Site is especially adapted for a cotton mill. (See advertisement of "B. and H.")

Annealing Furnaces.—Messrs. W. S. Rockwell & Co., of 26 Cortlandt street, New York, have recently built several of their improved annealing furnaces for the Dominion Wire Manufacturing Co., Montreal, Canada.

Exporting Coal.—Mr. Justice Cox, Jr., of Philadelphia, Pa., has added to his iron business the exporting of coal. He is shipping a cargo this week for South America, and will continue weekly shipments hereafter.

Bids for Lighting and for Sewer Construction.—The city of Spartanburg, S. C., is advertising for proposals for constructing sewers and for electric lighting. Arch B. Calvert, mayor, can be addressed. (See advertisement.)

Site for Manufactory.—Mr. I. H. Galtner, of Suffolk, Va., is desirous of communicating with any reliable manufacturer who is seeking a location in the South. Mr. Galtner is in a position to offer a fine plant free for a limited time.

Knitting Mills for Sale.—Mr. J. W. Camak, receiver of the Athens Knitting Mills, Athens, Ga., is offering the plant for sale. The plant is almost entirely new, fully equipped with thirty-two knitters, twenty-one ribbers, etc., for manufacture of hosiery and half hose.

Ingersoll-Sergeant in the South.—The business of the Ingersoll-Sergeant Drill Co. in the States of Mississippi, Louisiana and Texas will be attended to from a newly established office in the Hennen Building, at New Orleans. Mr. Harry M. Perry is the manager of the office.

Ball Engines Sold.—Two 165-horse-power tandem compound engines are being installed at Hammond, Ind., by the Ball Engine Co., of Erie, Pa.; the new steamer "Clarence E. Black," built by the Cleveland Shipbuilding Co., of Cleveland, O., has its dynamo for lighting connected to a 30-horse-power Ball engine.

General Engineering.—Mr. Albert A. Cary has established at 95 Liberty street, New York city, an office as consulting mechanical engineer. Mr. Cary will make a specialty of steam plants in all their various details, will draw specifications, designs and reconstruction papers for old plants, also testing steam and power plants, etc. Mr. Cary's experience in the engineering field fits him for the faithful performance of any contracts he may undertake.

Special Agencies for Jas. Bonar & Co.—Messrs. James Bonar & Co., of Pittsburg, Pa., have made arrangements for special agencies for the sale of their Pittsburg feed-water heater and purifier, Bonar gauge cocks and Bonar oil filters. Messrs. McClave & Hamilton, of 141 Broadway, New York city, will handle the New York district; F. W. Ashcroft, of 63 Olive street, Boston, the New England district, and Robert J. Campbell, of the City of Mexico, the Mexican republic district.

Ronald Trevor McDonald.—Ronald T. McDonald, president and general manager of the Fort Wayne Electric Co., died at Dallas, Texas, on December 24. Mr. McDonald was the founder of the electric manufacturing industry of his city, and by his energy and wise counsel contributed very largely to whatever measure of success has been attained by the present organization. The election of a new president will occur in due course of time and when made will be announced to all persons interested.

Oil-burning Furnaces, etc.—Messrs. W. S. Rockwell & Co., furnace engineers, 26 Cortlandt street, New York, have constructed recently four improved double-end oil annealing furnaces for the Detroit (Mich.) Copper and Brass Rolling Mills. These furnaces are operated by the Rockwell system of burning oil fuel; size of working chambers is twenty-five feet six inches by seven feet. Working chambers can be varied in length and width to meet all requirements. These furnaces carry a uniform annealing heat. For further particulars address Rockwell & Co.

Track-scales Attachment.—The Standard Scale & Supply Co., Limited, of Pittsburg,

has recently furnished the following companies with Reed recording attachments for their railroad-track scales, viz.: Illinois Steel Co., Joliet, Ill.; Union Iron & Steel Co., Youngstown, O.; Spearman Iron Co., Sharpsville, Pa.; Pennsylvania Car Wheel Co., Allegheny, Pa.; Girard Iron Co., Girard, O.; Oliver Snyder Steel Co., New Castle, Pa.; Wharton Furnace Co., Port Oram, N. J.; Aetna Standard Iron & Steel Co., Mingo Junction, O.; Jackson & Woodin Manufacturing Co., Berwick, Pa.; Chicago, Lake Shore & Eastern Railroad Co., South Chicago, Ill.; Cape Fear & Yadkin Valley Railroad Co., Wilmington, N. C.

Anent Mechanical Draft.—That the idea of using a fan instead of a chimney for producing draft has been in the minds of prominent engineers for years, and that its advantages have been clearly recognized, is evidenced by the following quotation from the treatise on "Mechanical Draft," recently published by the B. F. Sturtevant Co., of Boston, Mass.: "Nearly forty years ago Mr. D. K. Clark testified to 'the advantage of a rapid, or rather intense draft, in perfecting combustion and extinguishing smoke,' upon which Mr. C. Wye Williams was led to remark: 'But the difficulty lies in the obtaining of this "intense draft." * * The absolute command of draft for the generation of the required quantity of steam to enable the engines to work to their full power being then so essential, it becomes a question of whether other means than the natural draft should not be resorted to, since, independently of the uncertainty in the amount of draft, and the consequent irregularity in the working effect of the engines, the cost of sustaining that draft may be so much in excess of what an artificial draft would be. M. Pelet also at this time investigated the subject, showed the low efficiency of the chimney as compared with a fan, and recommended the use of rotary fans, applied for exhausting on the induced system.'"

TRADE LITERATURE.

Sturtevant Electric Fans.—Bulletin "H" of the B. F. Sturtevant Co., of Boston, is devoted to illustration and description of the Sturtevant electric fans.

Apollo Works.—The Apollo Iron & Steel Co. has presented the Manufacturers' Record a handsome colored representation of its extensive iron and steel works at Vandergrift, Pa.

Who Uses Mechanical Draft?—The foregoing is the title of a pamphlet issued by the B. F. Sturtevant Co., of Boston. This pamphlet contains a list of the larger plants equipped with Sturtevant engine-driven fans, etc.

Pencilings.—The title of an interesting brochure issued by the Joseph Dixon Crucible Co., of Jersey City, N. J., is "Pencilings." This booklet contains much information of interest to users of lead pencils for all purposes. Copy on application.

Birth of the Flag.—To meet the patriotic fervor of the present Messrs. Fleet, McGlinchey & Co. have issued as a souvenir of their printing house in Baltimore a useful guide to the future adorned with a record of the past. Their calendar for 1899, neatly printed and mounted, bears upon its face a colored picture of the birth of the American flag.

Thomson Recording Watt Meters.—Ten years ago electrical energy was supplied at a fixed rate per month for each installation, without much regard to the amount actually furnished. Today electric stations in this country supply on a meter basis the electricity they manufacture, with resultant advantage to the station economy. Some idea of the extent to which the meter business in this country has grown may be gathered from the fact that not less than 200,000 Thomson recording watt meters alone have been manufactured and sold by the General Electric Co. The business has grown from small beginnings by the persistent missionary work which has been carried on by this company through both agents and literature. The latest addition to the meter literature issued from the General Electric press is "Thomson Recording Watt Meters," a handsomely printed and illustrated brochure in a rich cover, dealing with the different types of these recording-energy meters which the General Electric Co. manufacture, their uses and their advantages. Each type of meter is clearly described and so illustrated that its construction can readily be understood. Full instructions are given for the care, connection and reading of these meters. The pamphlet will be sent on application made to the Schenectady (N. Y.) office of the General Electric Co.

FINANCIAL NEWS.

The Manufacturers' Record invites information about Southern financial matters, items of news about new institutions, dividends declared, securities to be issued, openings for new banks, and general discussions of financial subjects bearing upon Southern matters.

Illinois Central Dividends.

A report recently prepared of the dividend payments of the Illinois Central Railroad Co. shows what a large sum of money can be distributed in this manner by a railroad corporation. The Illinois Central has been paying dividends for thirty-five years, and during that time has disbursed \$77,625,000. It has made its dividend payments according to the condition of its business, and has never at any time declared more than could be properly paid out of its earnings. The management has always followed the plan of appropriating a sum annually sufficient to pay for all improvements, such as rails, rolling stock, new buildings, repairs to roadbed, etc. The range of dividends has been as high as 10 per cent. In 1863 its capital was a little over \$17,000,000, but the disbursements in that year amounted to nearly \$1,000,000. The stock has been increased as the system developed, until today the total amount is \$52,500,000. Very few companies in the world have such a record from a financial standpoint as the Illinois Central, for, as will be noted, its dividend payments already have amounted to \$25,000,000 more than its present capital stock.

Continental Trust Co.

The Continental Trust Co., of Baltimore, has completed its organization with \$2,000,000 capital stock and the same amount of surplus. The directors include Messrs. Alexander Brown, John K. Cowen, Henry A. Parr, William A. Marburg, James Sloan, Jr., S. Davies Warfield, Henry J. Bowdoin, Thomas J. Hayward, Robert Ramsay, Thornton Rollins, J. Southgate Lemmon, Edwin Warfield, George C. Jenkins and Isidor Rayner, of Baltimore; Louis E. McComas, Washington, D. C.; Wm. A. Read and Thomas F. Ryan, New York; J. G. Schmidlapp, Cincinnati; Myron T. Herrick, Cleveland; Stephen B. Elkins, West Virginia, and John Skelton Williams, of Richmond, Va. Mr. S. Davies Warfield was elected president; Mr. William A. Marburg, vice-president; Mr. Frederick C. Dreyer, secretary-treasurer. The directors elected as the executive committee Messrs. Alexander Brown, James Sloan, Jr., Henry A. Parr, William A. Marburg and Henry J. Bowdoin.

In Good Condition.

At the annual meeting of the Maryland Trust Co., of Baltimore, the following were elected directors: William A. Marburg, H. J. Bowdoin, Basil B. Gordon, Lloyd L. Jackson, J. Willcox Brown, Joshua Levering, Frank Brown, Leopold Strouse, Henry Walters, H. A. Parr, B. N. Baker, Andrew D. Jones, James Bond, Alexander Brown, W. B. Brooks, Jr., Clayton C. Hall, Frederick W. Wood, J. D. Baker, W. H. Baldwin, Jr., George A. Von Lingen, Joseph E. Willard, John A. Tompkins, Seymour Mandelbaum and John Pleasants. The statement submitted shows a paid-up capital stock of \$1,000,000, and the net earnings for the year 1898 \$364,467.36. The directors decided to recommend to the stockholders that the capital stock be increased \$500,000. The new stock will be issued at \$250 a share. The sale of this additional stock will give the company a capital of \$1,500,000 and a surplus of \$750,000 to be added to that it now holds.

Southern Bank Officers.

Recent changes in officers of Southern national banks are as follows: First National Bank, London, Ky., M. Hope elected vice-president; Easton National Bank of Easton, Md., E. C. Nickerson, vice-president; National Bank of Cockeysville, Md., H. E. Bartleson, vice-president; Clarksville National Bank of Clarksville, Tenn., M. C. Northington, vice-president; First National Bank of Abingdon, Va., W. G. Preston, vice-president.

New Corporations.

James L. McLemore and others are forming a bank at Suffolk, Va.

A new trust company is being formed in St. Louis, which it is calculated will have \$200,000 capital.

The Harrisburg Bank, of Harrisburg, Ark., will have \$25,000 capital. J. G. Gant is president.

The Dublin Banking Co., of Dublin, Ga., has received a charter to do business as a State institution.

A bill is pending in the North Carolina legislature to authorize the formation of a bank at Orange, in that State.

J. C. Braswell and others, of Rocky Mount, N. C., are forming a new bank at that place, with \$25,000 capital stock.

The proposed bank to be established at Adairsville, Ga., will have \$25,000 capital. Beach & Co. are interested in it.

The Mound City Insurance Association has been incorporated in Missouri, with \$100,000 capital. J. D. Barth is one of the directors.

The American Registry Co., recently incorporated at Baltimore with \$50,000 capital by William O. Oursler and others, will do an insurance business.

The Union Real Estate & Title Co. has received authority to do business at Louisville, Ky. Its capital is \$50,000. R. W. Bingham is one of the directors.

The Merchants and Miners' Bank of Scranton, Miss., has been incorporated with \$100,000 capital stock by W. E. Frederick, J. A. Miller and others.

A dispatch from Humboldt, Tenn., is to the effect that the new bank to be opened in that town will have \$50,000 capital. Local parties are interested in it.

The State National Bank, recently organized at Greensboro, N. C., has been authorized to do business by the government. J. M. Walker is president, and R. G. Vaughn, cashier.

A recent West Virginia incorporation is the United States, Cuba & Porto Rico Investment Co., with \$5,000,000 capital stock. John B. Gordon, of Atlanta, Ga., and Stewart W. Walker, of Martinsburg, W. Va., are among those interested.

New Securities.

The Bank of Jeanerette, La., has decided to increase its capital stock from \$15,000 to \$30,000.

F. R. Fulton & Co., of Chicago, have secured the issue of \$20,000 in 5½ per cent. bonds of Jackson, Miss., paying 103.06.

The issue of \$1000 in 6 per cent. school bonds to be made by Bartow, Ga., will be sold February 1 by R. H. Malone, city clerk.

The Tennessee legislature may grant the city of Chattanooga authority to issue \$650,000 in bonds for water-works purposes.

The city of Bryan, Texas, is considering the issue of \$15,000 worth of 5 per cent. bonds. The mayor will give further information.

Messrs. W. J. Hayes & Sons, of Cleveland, O., have purchased the issue of \$15,000 in 4½ per cent. bonds of Aiken, S. C., at 106.964.

The Vicksburg Street Railway Co., of Vicksburg, Miss., it is stated, has sold

\$100,000 worth of 6 per cent. bonds to Chicago parties.

E. R. Matthews, city clerk, will receive bids until February 7 for the issue of \$20,000 in 5 per cent. bonds to be made by Huntsville, Ala.

It is stated that the town of Brownsville, Tenn., is considering an issue of \$50,000 in bonds for improvements. The mayor may be addressed.

The \$40,000 worth of 5 per cent. bonds issued by Shreveport, La., will be sold February 1 by H. B. Murff, comptroller. They bear 5 per cent. interest.

Messrs. Seasongood & Mayer, of Cincinnati, O., have purchased the issue of \$25,000 in bonds of Carroll county, Kentucky, at \$25,756.50. The bonds bear 4 per cent. interest.

The New York Security & Trust Co. and Edward C. Jones & Co. have purchased \$1,000,000 worth of 5 per cent. bonds, issued for the improvement of the Louisiana levees. The price paid was 107 and interest.

Dividends and Interest.

Additional dividends to those already announced in the Manufacturers' Record are as follows:

State Bank, Jacksonville, Fla., 8 per cent. annual.

Berney National Bank, Birmingham, Ala., 3 per cent. semi-annual.

Henderson Bridge Co., Louisville, Ky., 2½ per cent. semi-annual; Louisville Gas Co., 2½ per cent. semi-annual.

People's Bank, Portsmouth, Va., 3 per cent. semi-annual.

Fourth National Bank, Atlanta, Ga., 5 per cent.; Atlanta National Bank, 10 per cent. semi-annual.

Linden Manufacturing Co., Davidson, N. C., 5 per cent. semi-annual.

Baltimore & Frederick Turnpike Co., Baltimore, Md., ¾ per cent.; Howard Fire Insurance Co., 3 per cent. semi-annual; Home Fire Insurance Co., 5 per cent. semi-annual.

Greensboro Manufacturing Co., Greensboro, N. C., (furniture), 10 per cent.

Green County Bank, Greenville, Tenn., 6 per cent. annual.

Merchants and Farmers' Bank, Marion, S. C., 4 per cent. semi-annual.

Statesville Cotton Manufacturing Co., Statesville, N. C., 6 per cent.

Cincinnati & Covington Railroad Co., ½ per cent., semi-annual.

Norfolk National Bank, Norfolk, Va., 3½ per cent. semi-annual; Bank of Savings and Trusts, 3½ per cent. semi-annual.

Cabarrus Cotton Manufacturing Co., Concord, N. C., 5 per cent. semi-annual; Odell Manufacturing Co. (cotton), 4 per cent. semi-annual.

Bank of Pine Bluff, Ark., 8 per cent.

Maury National Bank, Columbia, Tenn., 5 per cent. semi-annual.

First National Bank, Alexandria, La., 8 per cent.

Hernando Insurance Co., Memphis, Tenn., 4 per cent. semi-annual; Phoenix Fire Insurance Co., 4 per cent. semi-annual; Security Bank, 3 per cent. semi-annual; Memphis National Bank, 3 per cent. semi-annual.

Louisville & Nashville Railroad Co., 1½ per cent. semi-annual.

First National Bank, Gallatin, Tenn., 5 per cent. semi-annual.

Savannah Naval Stores Co., Savannah, Ga., 10 per cent.

Cabarrus Savings Bank, Concord, N. C., 5 per cent. semi-annual.

Bank of Jeanerette, La., 10 per cent.

Bank of High Point, N. C., 5 per cent. semi-annual; Commercial National Bank, 4 per cent. semi-annual.

Miners and Merchants' Bank, Lonaconing, Md., 2 per cent. semi-annual; Lonaconing Water Co., 4 per cent.

Bank of Greenwood, S. C., 4 per cent. semi-annual; City Bank, 8 per cent. annual.

First National Bank, Havre de Grace, Md., 10 per cent. annual.

Farmers and Merchants' Bank, Camden, S. C., 7 per cent. annual.

Dorchester National Bank, Cambridge, Md., 3 per cent. semi-annual; National Bank of Cambridge, 3 per cent. semi-annual; Cambridge Water Co., 4 per cent. semi-annual; Cambridge Gas Co., 2 per cent. semi-annual.

Lancaster (S. C.) Cotton Co., 3 per cent. semi-annual.

Queen City Bank, Gadsden, Ala., 3 per cent. semi-annual.

Highland Park Cotton Co., Charlotte, N. C., 4 per cent. semi-annual.

Eady-Baker Grocer Co., La Grange, Ga., 6 per cent. annual; La Grange Banking Co., 5 per cent. semi-annual.

National Bank of Bristol, Tenn., 3 per cent. semi-annual; Merchants' National Exchange Bank, 8 per cent.; Merchants' Bank, 8 per cent. annual; Dominion National Bank, 4 per cent. semi-annual.

Capital City Insurance Co., Montgomery, Ala., 3 per cent. semi-annual.

Bank of Rayne, La., 4 per cent.

Newnan National Bank, Newnan, Ga., 3 per cent. semi-annual; First National Bank, same amount; also the Newnan Banking Co.

Commercial Bank, Grayson, Ky., 10 per cent. annual.

Bank of McComb City, Miss., 10 per cent. annual.

First National Bank, Gallatin, Tenn., 5 per cent. semi-annual.

People's Bank, Elizabethton, Tenn., 20 per cent. annual.

People's Bank, Summit, Miss., 10 per cent. annual.

Jackson Bank, Jackson, Miss., 8 per cent. annual.

Easley Bank, Easley, S. C., 8 per cent. annual.

Newberry National Bank, Newberry, S. C., 4 per cent. semi-annual.

Bank of Lewisport, Ky., 4 per cent.

First National Bank of Jackson, Tenn., 6 per cent. semi-annual.

Financial Notes.

A dispatch from St. Louis, Mo., is to the effect that the Commercial and City banks of that city are to be consolidated.

S. Guckenheimer has been elected president of the Merchants' National Bank, of Savannah, Ga.; J. A. G. Carson, vice-president, and W. M. Davant, cashier.

The Carolina National Bank of Columbia, S. C., according to the report of the comptroller of the currency, ranks first in that city in proportion of its surplus and profits to its capital, and second in the State. The last report shows \$134,180 surplus and profits, and capital stock \$100,000.

CALIFORNIA.**Extraordinary Tour via Pennsylvania Railroad.**

America is a great country. In variety and grandeur of natural scenery it is unrivaled. To traverse it, to behold its diversities and its wonders, is a liberal education, a revelation to the immured metropolitan citizen. The personally-conducted tour to California, under the direction of the Pennsylvania Railroad Co., which leaves on February 9, affords a most excellent opportunity to view the vast variety and boundless beauty of this marvelous land. The party will travel over the entire route in the model Pullman train of smoking, dining, sleeping and observation cars exhibited at the World's Fair, Chicago, and subsequently at Atlanta, Nashville and Omaha. This train will be placed in service for the first time on this occasion, and will be in charge of a tourist agent and chaperon, who will look after all details of the trip as well as the individual welfare of members of the party. Stops will be made at Mammoth Cave, New Orleans during Mardi Gras Carnival, El Paso, Los Angeles, San Diego, Redlands, Riverside, Pasadena, Santa Barbara, Monterey, Del Monte, Santa Cruz, Mount Hamilton, Menlo Park, San Francisco, Salt Lake City, Glenwood Springs, Colorado Springs, Manitou and Garden of the Gods, Denver and Chicago. Nineteen days will be spent in California. Round-trip rate, including all necessary expenses during entire trip, \$400 from all points on the Pennsylvania Railroad system east of Pittsburgh. For itinerary and full information apply to ticket agents or address Geo. W. Boyd, assistant general passenger agent, Broad Street Station, Philadelphia.

FLORIDA.**Fortnightly Tours via Pennsylvania Railroad.**

The midwinter exodus has begun. The discomforts and dangers of our Northern winter are directing attention to the sunny lands of the South.

The first Pennsylvania Railroad tour to Jacksonville, allowing two weeks in Florida, will leave Baltimore January 24.

Excursion tickets, including railway transportation, Pullman accommodations (one berth) and meals en route in both

TABLE OF CONTENTS.

EDITORIAL:	Page.
America's Commerce.....	433
Faith and Caution.....	433
When the Iron Is Hot.....	433
A Business Ambassador.....	433
Favors the Subsidy.....	433
The Text Hit Home.....	434
Fairness of Railroads.....	434

Helped by Railroads.....	434
Eastern Iron Markets.....	434
Policy of the Seaboard Air Line.....	435
For the Interests of All.....	436
Data for History.....	436
American Nuts and Bolts.....	436
Bridges for B. & O.....	436
America's Great Bourse.....	437

COMMERCE:

Shipbuilding in Germany.....	438
Our Foreign Commerce.....	438
Norfolk's Export Trade.....	438
Improving Southwest Pass.....	438
Another South American Line.....	438
Texas Corn Exports.....	438
Richmond to Charleston.....	438
Docks for the Baltimore & Ohio.....	438
Mobile's Cuban Trade.....	438
Jottings at the Ports.....	438

RAILROAD NEWS:

Railroad Earnings for 1898.....	439
Western Travel Southward.....	439
Kansas City, Pittsburg & Gulf.....	439
Southern Pacific and Galveston.....	439
B. & O. Rolling Stock.....	439
Virginia, Fredericksburg & Western.....	439
Railroad Interests in Texas.....	439
Railroad Notes.....	439
Petroleum in the South.....	439

TEXTILES:

A Center of Activity.....	439
The Cotton Movement.....	439
A Powerful Friend for Southern Cotton Interests.....	440
Marshall Mills at Richmond to Resume.....	440
7000-Spindle Mill for Rock Hill, S. C.....	440
To Add 1300 Spindles.....	440
Adding 3800 Spindles.....	440
To Install 3500 Spindles.....	440
Improvements to Cost \$40,000.....	440
Textile Notes.....	440

COTTONSEED OIL:

The Market for Cottonseed Products.....	440
Cottonseed-Oil Notes.....	440

LUMBER:

Lumber Market Reviews:	
Baltimore.....	441
Norfolk.....	441
Savannah.....	441
Mobile.....	441
Lumber Notes.....	441

PHOSPHATES:

Phosphate Markets.....	442
Phosphate and Fertilizer Notes.....	442

MECHANICAL:

Generating Set with Horizontal Engine (Illus.).....	443
Jeffrey Belt Conveyor (Illus.).....	443
Handy Hose Attachments (Illus.).....	443
Trade Notes.....	443, 449

CONSTRUCTION DEPARTMENT:

New Enterprises.....	444
Building Notes.....	446
Railroad Construction.....	447
Machinery Wanted.....	447
General Industrial News.....	448
Trade Literature.....	449

FINANCIAL NEWS:

Illinois Central Dividends.....	449
Continental Trust Co.....	449
In Good Condition.....	449
Southern Bank Officers.....	450
New Corporations.....	450
New Securities.....	450
Dividends and Interest.....	450
Financial Notes.....	450

directions while traveling on the special train, will be sold at the following rate: Baltimore, \$48, and at proportionate rates from other points.

For tickets, itineraries and other information apply to ticket agents or to Geo. W. Boyd, assistant general passenger agent, Broad Street Station, Philadelphia.

Additional Train Service to New York.

Commencing Monday, January 16, the Pennsylvania Railroad Co. will attach a through coach to "Colonial Express" between Washington, Baltimore and Jersey City. Leave Baltimore (Union Station) 8.50 A. M., arriving Philadelphia 10.50 A. M., New York (Desbrosses or Cortlandt Street Ferry) 1.13 P. M., and Twenty-Third Street, New York, 1.35 P. M.

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